Measurement of

Volatile Organic Compounds in the Greater Vancouver Regional District

(August - December 1988)

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INTRODUCTION

During the summer and fall of 1988 a measurement program for volatile organic compounds was carried out at 11 sites within the Greater Vancouver Regional District (GVRD). There were three major objectives for the program (1) to provide information on volatile organic species of importance to ozone formation within the GVRD (2) to provide information on concentrations of potentially, toxic volatile organic compounds within the GVRD and (3) to investigate the impact of emissions from a pipeline distribution and storage facility (Trans Mountain Pipe Lines) on air quality in the GVRD. The program was similar to one conducted within the GVRD in 1987.

A total of 82 hydrocarbons and 13 chlorinated hydrocarbons were identified and quantified in each sample. Additionally, approximately half of the samples were analyzed for C_2 hydrocarbons (ethylene, ethane and acetylene). *Appendix A* contains some details of the analytical methodology, results of quality assurance analyses and conversion factors for each compound in order to convert to or from units of $\mu g/m^3$, ppbv and ppbC.

RESULTS

General

A summary of the sampling sites, the number of samples collected at each, and the normal sampling periods is given in *Table 1*. Most samples were collected between the hours of 0600 to 0900. Sites in vicinity of the Trans Mountain Pipeline (TMPL) facility were Forest Hill, Shell Tank Farm, Burnaby Piper Street Yard and Trans Mountain Pipe Line.

Concentrations of all measured organic compounds by sample date and by site are contained in *Appendix B*. Detailed C_2 hydrocarbon results are given separately in *Appendix B*.

AIR TOXICS

A number of the volatile organics measured are considered to be of concern because of potential effects on human health. These toxic volatile organics have been summarized in *Table 2*. Mean concentrations for each sampling site are given. For most sites the mean concentrations are based on 3 hour averages; for sites T1, T4, T9, T15, and T17 the means are based on a limited number of 24 h samples. In *Table 3* the composite mean concentrations of aromatic hydrocarbons from the 5 sites in the vicinity of TMPL are compared with the composite means from sites T2 and T18 (3 hour averages) and the composite means from the other "T" sites (24 hour averages). *Table 4* provides some comparative data from 1987 sampling in the GVRD and from other sites in Canada.

TABLE 1 - SAMPLING SITES within the GVRD - 1988

Site Name	Site ID	Address	Total No. of Samples	No. of Samples by Time			
				0600-0900	1800-2100	24 h	Other
Burnaby Piper Street Yard	BPSY	Piper Street, Burnaby	8	5	3	0	0
Forest Hills	FH	Forest Hills, Burnaby	30	22	5	0	3
Robson Square	T1	Robson/Hornby, Vancouver	1	0	0	1	0
Shell Tank Farm	STF	Underhill Ave, Burnaby	9	4	4	0	1
Surrey East	T15	72nd Ave./192 St., Surrey	1	0	0	1	0
Richmond South	T17	Williams/Aragon, Richmond	1	0	0	1	0
Burnaby South	T18	5455 Rumble, Burnaby	10	10	0	0	0
Kitsilano	T2	2550 W. 10th Ave., Vancouver	8	8	0	0	0
Kensington Park	T4	6400 E. Hartinger, Burnaby	1	0	0	1	0
Rocky Point Park	T9	Murray St./Esplanade, Port Moody	5	0	0	5	0
Trans Mountain Pipeline	TMPL	Shellmont Drive, Burnaby	9	6	3	0	0
Total			83	55	15	9	4

Table 2 : Mean and Maximum Concentrations ($\mu g/m^3$) of Toxic VOC

Compounds	BPSY (n=8)		FH (n= 30)		TMPL (n=9)		STF (n=9)		T18 (n=10)		T2 (n=8)		T9 (n=5)		T1	T15	T17	T4
	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max	n=1	n=1	n=1	n=1
1,3-Butadiene	2.2	3.9	1.0	4.1	0.7	1.3	1.3	3.8	0.7	0.7	0.5	1.0	1.3	2.8	1.7	0.5	4.8	1.4
Benzene	24.4	47.6	11.3	76.7	5.7	9.9	13.2	36.1	6.1	6.6	3.9	6.9	11.2	28.7	11.5	3.0	41.1	17.9
Toluene	61.3	111.9	21.9	89.0	11.4	23.4	24.4	56.1	16.5	17.8	10.0	22.9	41.3	127.4	24.5	5.3	114.6	35.1
Ethylbenzene	8.8	17.9	2.6	9.8	1.8	3.6	3.4	7.4	2.4	2.6	1.4	2.3	4.3	11.2	4.1	0.8	12.2	5.3
m-p-Xylene	33.4	66.6	9.4	35.8	6.7	14.0	12.5	28.3	8.3	8.8	5.1	8.1	15.6	39.8	14.2	2.7	43.4	18.1
Styrene	2.0	3.4	0.8	4.0	0.5	1.4	1.1	1.8	1.4	1.4	0.2	0.7	3.8	7.9	1.1	0.4	6.5	3.9
o-Xylene	11.8	24.0	3.5	12.7	2.3	4.7	4.5	9.9	2.9	3.1	1.7	2.8	5.5	13.6	4.7	1.0	14.6	6.1
1,3,5-Trimethylbenzene	6.0	12.4	1.5	4.9	1.3	2.5	2.0	4.4	0.6	0.6	1.1	3.7	2.4	5.8	1.7	0.4	6.1	2.8
1,2,4-Trimethylbenzene	18.3	36.5	5.7	14.9	4.6	8.2	7.1	14.1	6.0	6.2	4.4	12.3	10.8	21.5	15.2	4.8	22.1	11.6
Dichloromethane	4.1	10.2	2.5	9.5	1.7	2.7	3.4	7.9	4.0	4.0	1.8	2.8	6.2	6.9	6.1	3.4	7.7	4.8
Chloroform	0.5	1.1	0.4	1.5	0.4	0.6	0.4	0.7	0.5	0.4	0.6	1.3	0.4	0.5	0.6	0.3	0.6	1.2
1,1,1-Trichloroethane	6.2	11.4	3.2	15.0	2.0	2.9	2.6	3.8	2.5	2.4	1.8	2.4	6.4	20.1	4.0	1.8	5.3	2.6
Carbon tetrachloride	0.9	1.4	0.9	3.5	1.0	2.0	0.9	1.4	0.8	0.8	1.0	1.7	0.8	0.9	1.0	0.7	0.5	0.7
Trichloroethylene	1.7	7.8	0.9	3.2	0.4	0.8	0.4	1.2	1.9	2.1	0.9	1.6	1.6	2.7	1.7	1.7	1.5	0.7
Tetrachloroethylene	4.2	16.8	1.6	5.6	1.1	3.7	2.3	5.7	2.9	2.9	2.6	5.9	2.5	5.6	2.0	0.7	5.9	4.3
1,4-Dichlorobenzene	5.9	15.9	0.9	6.3	1.1	5.8	0.9	2.4	2.2	2.0	1.1	2.3	0.9	1.6	1.6	0.9	0.7	0.7

TABLE 3 - COMPARISON of AROMATIC HYDROCARBON CONCENTRATIONS ($\mu g/m^3$) TMPL VICINITY SITES vs OTHER

Compound	TMPL Vicinity* Sites (n = 56) Mean	T2 & T18* Sites (n = 18) Mean	Other Sites + (n = 9) Mean
Benzene	12.6	5.1	14.4
Toluene	26.2	13.6	42.9
Ethylbenzene	3.5	2.0	4.9
m,p-Xylene	12.9	6.9	17.4
o-Xylene	4.7	2.4	6.0
Styrene	1.0	0.9	3.4

* 3 h Samples + 24 h Samples

TABLE 4 - COMPARISON of SELECTED VOC CONCENTRATIONS ($\mu g/m^3$) VANCOUVER AND OTHER CANADIAN CITIES

Compound	Vancouver FH* 1988	Vancouver T9 + 1988	Vancouver T22* 1987	Windsor + 1987-88	Toronto* 1987	Montreal + 1986-88
Benzene	11.3	11.2	14.6	4.3	11.0	10.8
Toluene	21.9	41.3	26.9	16.1	53.4	17.2
m,p-Xylene	9.4	15.6	14.9	8.3	22.0	--
1, 3-Butadiene	1.0	1.3	5.0	0.5	1.9	--
Dichloromethane	2.5	6.2	--	5.3	--	--
Trichloroethylene	0.9	1.6	--	2.6	1.8†	0.7†
Tetrachloroethylene	1.6	2.5	--	3.2	2.5†	1.9†

* 3 h data + 24 h data † 1985 data

VOC REACTIVITY

As discussed in the introduction, volatile organics sampling was also carried out in the GVRD in order to provide information on the role of VOC species in ozone formation. In *Table 5* the categories of volatile organics important in the photochemical generation of ozone are shown. Also included are some representative species for each compound category and their hydroxyl radical (0H) reaction rate coefficients (K_{OH}). Reaction rate coefficients are a measure of a compound's reactivity and ozone forming potential; the higher the rate constant, the more rapid a compound will be degraded by reaction with hydroxyl radical. Different mixtures of VOC will produce ozone at different rates and will produce different maximum ozone concentrations (at constant NO_x concentrations). Because of its very low reaction coefficient methane is usually excluded from most measurement programs.

Table 6 presents the distribution by site of VOC in terms of percent of total carbon by compound category. Total non methane VOC concentration in ppbC are also provided by site. Since C_2 data were not available for every sample or every site, C_2 concentrations have been treated separately and are given in *Table 7*. C_2 concentrations are not included in the totals in *Table 6*.

The data have also been analyzed in terms of contribution to total VOC reactivity by compound class. For each compound the mean concentration (ppbv) was multiplied by the compound's reactivity coefficient, these products were then used to calculate a total reactivity by compound category. The results are given in *Table 8* for each sampling site.

At two sites, T2 and T18, NO_x monitors were operated during the time of VOC sample collection allowing a calculation of NMOC/NO_x ratios, as shown in *Table 9*. All ratios at both sites were calculated for the period 0600-0900. These two sites had the lowest mean NMOC values of any of the sites with 3 h concentration data; NMOC/NO_x ratios would undoubtedly be much higher at many of the other sites.

TABLE 5 - IMPORTANT VOLATILE ORGANIC COMPOUND CLASSES and SPECIES in AMBIENT AIR re OXIDANTS ISSUE

Category	Representative Species	Representative Reactivity Coefficient 10^{12} kOH ($cm^3 mol^{-1} s^{-1}$)	Typical Fraction of Urban Ambient Air Sample*
1. Alkanes (Paraffins)	Ethane 2,3-Dimethylbutane *n*-Hexane	0.3 6.2 5.6	40-70%
2. Alkenes (Olefins)	Ethylene *cis*-2-Butene Isoprene α-pinene	8.5 56.1 101.0 53.0	5-12%
3. Aromatics	Benzene *m*-Xylene Ethylbenzene 1,2,4-Trimethylbenzene	1.3 20.0 7.5 46.0	20-40%
4. Aldehydes & Ketones (Carbonyls)	Formaldehyde Acetaldehyde	9.0 16.0	1-5%

TABLE 6 - DISTRIBUTION of VOC by COMPOUND CATEGORY (% TOTAL CARBON)

Site ID	No. of Samples	Mean Total NMOC (ppbC)	% of Total		
			Alkenes	Alkanes	Aromatics
BPSY	8	1,330	10.8%	60.0%	29.2%
FH	30	788	14.2	69.5	16.3
TMPL	9	382	5.7	71.9	22.4
STF	9	883	13.7	68.6	17.7
T1	1	476	10.6	54.3	35.2
T2	8	194	9.1	54.9	36.0
T4	1	1,326	8.5	74.2	17.4
T9	5	603	8.2	56.0	35.9
T17	1	1,425	10.1	49.7	40.2
T18	10	324	8.5	53.8	37.7

TABLE 7 - CONCENTRATIONS (ppbC) of C_2 COMPOUNDS

Site	No. of Samples	Mean Concentration (ppbC)				% of Total	
		Ethylene	Ethane	Acetylene	Total C_2	NMOC	Reactivity
BPSY	8	43.0	12.3	37.4	92.7	6.5	9.7
FH	16	24.9	13.3	20.0	58.2	6.9	9.1
T1	1	24.1	7.1	14.6	45.8	8.8	14.7
T 17	1	49.0	17.1	34.8	100.9	6.6	10.8
T 18	10	12.5	7.2	10.3	30.0	8.5	12.0
T 9	3	84.6	8.3	14.1	107.0	15.1	34.8
TMPL	3	15.7	9.1	16.0	40.8	9.7	16.3
All	42	29.6	11.0	20.5	61.0	--	--

TABLE 8 - CONTRIBUTION of VOC to TOTAL REACTIVITY (ppbv x K_{OH}) by COMPOUND CATEGORY

Site	No. of Samples	Mean Total Reactivity	% of Total		
			Alkenes	Alkanes	Aromatics
BPSY	8	3,410	57.4	18.2	24.4
FH	30	2,124	68.2	20.0	11.8
TMPL	9	683	39.7	31.0	29.4
STF	9	2,428	67.8	19.1	13.1
T 1	1	1,190	50.8	16.6	32.6
T 2	8	471	47.3	18.1	34.7
T 4	1	2,750	53.9	27.9	18.3
T9	5	1,347	45.5	19.3	35.2
T17	1	3,429	51.7	16.2	32.1
T18	10	777	43.0	17.7	39.0

TABLE 9 - NMOC / NO_x RATIOS at SAMPLING SITES

Site	Total No. of Samples	Mean Total NMOC (ppbC)	Mean NO_x (ppb)	Ratio NMOC / NO_x		
				Mean	Median	Max.
T 2	5	193	52.6	3.6	4.4	5.0
T 18	10	321	63.5	6.9	5.6	14.5

APPENDIX A

1. Methodology and Quality Assurance Results

2. Conversion Factors and Reactivity Coefficients

Table A1: VOC Species ,Conversion Factors and OH Reaction Coefficients

Compounds	Conversion Factor $\mu g/m^3$ to ppbv	No. of Carbon Atoms	Category	Reactivity Coeff. x 10^{12} (cm^3 mol^{-1} s^{-1})
C2	0.815	2	1	8.5
Propylene	0.582	3	2	26.3
1-Propyne	0.611	3	2	2.0
1-Butene/Isobutene	0.436	4	2	31.4
1,3-Butadiene	0.453	4	2	66.8
trans-2-Butene	0.436	4	2	63.7
1-Butyne	0.453	4	2	8.0
cis-2-Butene	0.436	4	2	56.1
2-Methyl-1-butene	0.349	4	2	31.8
1-Pentene	0.349	5	2	31.4
2-Methyl-1-butene	0.349	5	2	31.8
Isoprene	0.359	5	2	101.0
trans-2-Pentene	0.349	5	2	77.0
cis-2-Pentene	0.349	5	2	77.0
2-Methyl-2-butene	0.349	5	2	86.9
3-Methyl-1-pentene	0.291	6	2	50.0
1-Hexene	0.291	6	2	67.0
trans-2-Hexene	0.291	6	2	95.0
2-Methyl-2-pentene	0.291	6	2	95.0
trans-3-Methyl-2-pentene	0.291	6	2	95.0
cis-2-Hexene	0.291	6	2	95.0
cis-3-Methyl-2-pentene	0.291	6	2	95.0
trans-2-Heptene	0.249	7	2	100.0
cis-2-Heptene	0.249	7	2	100.0
Propane	0.555	3	3	1.2
Isobutane	0.421	4	3	2.4
Butane	0.421	4	3	2.6
2,2-Dimethylpropane	0.339	5	3	4.1
Isopentane	0.339	5	3	3.9
Pentane	0.339	5	3	4.1
2,2-Dimethylbutane	0.284	6	3	6.2
Cyclopentane	0.349	5	3	5.2
2,3-Dimethylbutane	0.284	6	3	6.2
2-Methylpentane	0.284	6	3	5.5
3-Methylpentane	0.284	6	3	5.6
Hexane	0.284	6	3	5.6
Methylcyclopentane	0.291	6	3	7.0
2,4-Dimethylpentane	0.244	7	3	7.0
Cyclohexane	0.291	6	3	7.4
2-Methylhexane	0.244	7	3	6.2
2,3-Dimethylpentane	0.244	7	3	7.0
3-Methylhexane	0.244	7	3	6.2
trans-1,3-Dimethylcyclohexane	0.218	8	3	9.3
cis-1,3-Dimethylcyclohexane	0.218	8	3	9.3
2,2,4-Trimethylpentane	0.214	8	3	3.7
Heptane	0.244	7	3	6.2
Methylcyclohexane	0.249	7	3	7.0
2,5-Dimethylhexane	0.214	8	3	7.0

Table A1: VOC Species ,Conversion Factors and OH Reaction Coefficients

Compounds	Conversion Factor $\mu g/m^3$ to ppbv	No. of Carbon Atoms	Category	Reactivity Coeff. x 10^{12} (cm^3 mol^{-1} s^{-1})
2,4-Dimethylhexane	0.214	8	3	4.2
2,3,4-Trimethylpentane	0.214	8	3	3.7
2-Methylheptane	0.244	8	3	7.5
4-Methylheptane	0.244	8	3	7.3
3-Methylheptane	0.244	8	3	7.5
2,2,5-Trimethylhexane	0.191	9	3	10.0
Octane	0.214	8	3	8.7
2,3-dimethylheptane	0.191	9	3	8.0
4-Methyloctane	0.191	9	3	9.0
3-Methyloctane	0.191	9	3	9.0
Nonane	0.191	9	3	7.0
Decane	0.172	10	3	7.0
Undecane	0.157	11	3	7.0
Dodecane	0.144	12	3	7.0
Benzene	0.313	6	4	1.3
Toluene	0.266	7	4	6.2
Ethylbenzene	0.231	8	4	7.5
m,p-Xylene	0.231	8	4	20.0
Styrene	0.235	8	4	52.6
o-Xylene	0.231	8	4	15.0
iso-Propylbenzene	0.204	9	4	6.6
n-Propylbenzene	0.204	9	4	5.7
4-Ethyltoluene	0.204	9	4	5.4
3-Ethyltoluene	0.204	9	4	15.4
1,3,5-Trimethylbenzene	0.204	9	4	72.5
2-Ethyltoluene	0.204	9	4	15.4
1,2,4-Trimethylbenzene	0.204	9	4	46.0
1,2,3-Trimethylbenzene	0.204	9	4	46.0
p-Cymene	0.182	10	4	50.0
Indane	0.207	9	4	50.0
1,3-Diethylbenzene/n-Butylbenzene	0.182	10	4	40.0
1,4-Diethylbenzene	0.182	10	4	40.0
1,2-Diethylbenzene	0.182	10	4	40.0
Trichlorofluoromethane	0.18			
Dichloromethane	0.287			
Chloroform	0.205			
1,1,1-Trichloroethane	0.184			
Carbontetrachloride	0.159			
Trichloroethylene	0.187			
Tetrachloroethylene	0.147			
1,4-Dichlorobenzene	0.166			

Table A2 : Results of Duplicate Analyses

Compounds	No. of Dups.	Mean % Diff.	Std. Dev.	Median % Diff.
Propylene	25	22.2	22.8	17.0
Propane	25	21.4	25.7	11.8
1-Propyne	19	10.7	11.6	5.8
Isobutane	25	36.4	25.1	31.3
1-Butene/Isobutene	25	34.0	46.8	8.0
1,3-Butadiene	25	13.3	18.3	6.4
Butane	25	10.8	16.5	2.5
trans-2-Butene	25	3.2	3.7	2.1
1-Butyne	1	0.1		
cis-2-Butene	18	3.4	3.3	2.0
2-Methyl-1-butene	23	3.6	4.8	2.5
2-Methylbutane	25	1.7	2.9	1.1
1-Pentene	25	8.7	20.0	2.1
2-Methyl-1-butene	23	17.5	10.9	17.4
Pentane	25	2.0	5.7	0.7
Isoprene	24	4.6	5.5	2.5
trans-2-Pentene	25	2.7	2.4	2.0
cis-2-Pentene	25	11.0	37.8	1.9
2-Methyl-2-butene	25	11.2	35.2	4.4
2,2-Dimethylbutane	25	6.0	10.2	2.2
3-Methyl-1-pentene	20	12.4	11.1	8.5
Cyclopentane	24	2.8	6.9	1.0
2,3-Dimethylbutane	24	3.5	8.3	1.2
2-Methylpentane	25	1.8	2.3	1.3
3-Methylpentane	25	8.3	30.3	1.2
1-Hexene	25	7.0	6.9	4.2
Hexane	25	3.0	3.4	1.7
trans-2-Hexene	24	2.7	2.1	2.1
2-Methyl-2-pentene	25	5.4	8.8	3.1
trans-3-Methyl-2-pentene	23	4.6	5.7	2.4
cis-2-Hexene	22	43.7	55.7	9.7
cis-3-Methyl-2-pentene	24	4.1	4.5	2.6
Methylcyclopentane	25	2.0	1.7	2.0
2,4-Dimethylpentane	25	5.8	12.7	2.5
Benzene	25	3.1	4.1	1.5
Cyclohexane	25	7.6	5.9	7.1
2-Methylhexane	25	4.5	4.0	3.1
2,3-Dimethylpentane	25	7.4	13.9	3.6
3-Methylhexane	25	4.0	3.0	3.4
trans-1,3-Dimethylcyclohexane	24	5.1	4.9	3.5
cis-1,3-Dimethylcyclohexane	24	3.2	3.1	1.9
2,2,4-Trimethylpentane	25	8.0	20.9	2.5
Heptane	25	3.8	5.7	2.4
trans-2-Heptene	25	10.3	10.2	5.0
cis-2-Heptene	24	13.4	23.8	6.2
Methylcyclohexane	25	10.5	11.1	5.9
2,5-Dimethylhexane	24	14.1	17.0	6.5
2,4-Dimethylhexane	24	9.3	11.0	5.9
2,3,4-Trimethylpentane	24	12.9	17.4	8.2
Toluene	25	2.5	5.7	1.2
2-Methylheptane	24	11.4	11.0	7.0

Table A2 : Results of Duplicate Analyses

Compounds	No. of Dups.	Mean % Diff.	Std. Dev.	Median % Diff.
4-Methylheptane	20	25.9	32.8	5.6
3-Methylheptane	23	11.8	10.9	6.5
2,2,5-Trimethylhexane	25	13.8	17.9	6.5
Octane	25	6.3	5.4	5.6
Ethylbenzene	25	3.0	4.2	1.0
2,3-dimethylheptane	24	7.0	5.5	5.1
m-p-Xylene	25	2.1	3.6	0.7
4-Methyloctane	24	6.4	7.1	3.0
3-Methyloctane	18	48.8	59.2	16.2
Styrene	18	21.0	36.2	8.0
o-Xylene	25	6.9	12.1	3.1
Nonane	18	50.8	36.0	18.7
iso-Propylbenzene	25	17.4	17.2	16.3
n-Propylbenzene	24	18.8	25.4	7.0
4-Ethyltoluene	25	10.6	19.4	3.9
3-Ethyltoluene	24	11.4	20.0	3.6
1,3,5-Trimethylbenzene	24	16.1	27.8	3.2
2-Ethyltoluene	25	14.6	25.9	7.5
1,2,4-Trimethylbenzene	25	6.5	7.6	3.3
Decane	25	11.6	13.8	7.8
1,2,3-Trimethylbenzene	14	24.7	31.6	8.3
p-Cymene	23	8.7	5.8	8.3
Indane	24	10.0	11.2	6.2
1,3-Diethylbenzene	16	7.6	8.3	5.3
1,4-Diethylbenzene	25	10.9	12.8	5.9
1,2-Diethylbenzene	24	12.0	13.7	6.4
Undecane	24	15.8	18.0	4.7
Dodecane	25	14.6	15.0	7.8
Trichlorofluoromethane	25	4.4	6.7	1.7
Dichloromethane	24	13.1	13.0	7.0
Chloroform	25	21.2	26.5	15.3
1,1,1-Trichloroethane	25	9.6	9.4	7.1
Carbontetrachloroide	25	7.8	9.1	5.3
Trichloroethylene	25	8.5	10.1	5.3
Tetrachloroethylene	25	6.5	9.2	2.8
1,4-Dichlorobenzene	14	24.5	17.2	7.1

APPENDIX B

Mean Concentration ($\mu g/m^3$) of VOC Compounds by Sampling Day

Table B1:CONCENTRATIONS ($\mu g/m^3$) of VOC by SAMPLE - GVRD 1988

	BPSY	BPSY	BPSY	BPSY	BPSY	BPSY	BPSY	BPSY	FH	FH
	20-Oct-88 1800-2100	22-Oct-88 0600-0900	27-Oct-88 0600-0900	28-Oct-88 0600-0900	28-Oct-88 1800-2100	29-Oct-88 1800-2100	31-Oct-88 0600-0900	4-Nov-88 0600-0900	7-Aug-88 0600-0900	13-Aug-88 0600-0900
Propylene	4.02	2.28	13.63	10.40	8.40	2.56	6.31	3.22	0.70	0.84
Propane	8.35	5.66	67.04	45.76	52.34	5.91	12.10	7.61	2.90	2.25
1-Propyne	0.00	0.44	2.76	2.23	2.23	0.51	2.49	0.69	0.00	0.00
Isobutane	13.32	5.50	46.68	42.33	39.81	7.29	3.87	11.91	7.15	9.51
1-Butene/Isobutene	3.41	1.69	13.62	10.42	12.50	3.91	3.64	5.97	1.94	2.90
1,3-Butadiene	1.66	0.95	3.86	3.18	2.31	0.99	3.22	1.43	0.25	0.30
Butane	57.58	24.49	107.19	161.38	232.81	76.86	20.10	21.01	57.08	25.82
trans-2-Butene	4.47	2.07	18.10	20.72	18.46	6.33	3.04	3.53	5.05	1.84
2,2-Dimethylpropane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1-Butyne	0.04	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
cis-2-Butene	2.90	1.34	11.25	13.13	11.99	4.19	0.00	2.40	3.22	1.31
2-Methyl-1-butene	0.66	0.32	2.16	2.30	2.88	1.32	0.57	0.44	0.61	0.33
2-Methylbutane	43.46	20.21	133.52	137.35	158.01	86.24	32.31	28.27	53.36	34.06
1-Pentene	1.66	0.80	4.94	4.26	6.60	3.43	1.37	0.94	1.44	0.77
2-Methyl-1-butene	1.11	0.59	3.99	3.43	4.92	2.73	1.12	0.84	1.11	0.51
Pentane	35.35	16.84	89.52	90.01	137.49	87.30	29.16	20.95	41.08	13.93
Isoprene	1.08	0.58	3.10	2.98	3.27	1.32	2.07	0.77	1.98	0.31
trans-2-Pentene	3.96	1.74	9.27	10.64	15.70	8.95	3.24	2.31	3.27	1.44
cis-2-Pentene	1.93	0.91	4.89	5.45	8.21	4.72	1.65	1.18	1.59	0.73
2-Methyl-2-butene	7.08	3.15	16.92	20.39	29.18	15.57	5.93	4.34	5.90	2.92
2,2-Dimethylbutane	1.49	0.65	3.40	3.37	5.04	2.96	1.34	0.94	1.37	0.62
3-Methyl-1-pentene	0.26	0.17	0.63	0.65	1.14	0.76	0.26	0.20	0.23	0.12
Cyclopentane	3.03	1.44	7.00	7.02	13.34	9.13	2.99	1.81	2.69	1.21
2,3-Dimethylbutane	3.27	1.56	7.42	7.48	13.17	8.14	2.94	1.97	2.49	1.28
2-Methylpentane	17.45	8.28	35.85	37.08	73.43	50.07	17.04	10.83	14.26	7.38
3-Methylpentane	10.24	4.83	20.99	21.80	42.13	28.30	9.89	6.38	7.44	3.77
1-Hexene	1.29	0.62	2.97	2.90	5.41	3.60	1.39	0.85	0.68	0.40
Hexane	12.70	6.84	28.27	30.84	51.12	34.33	12.29	8.88	8.25	3.95
trans-2-Hexene	1.39	0.74	2.73	2.96	5.97	4.48	1.43	0.85	0.66	0.21
2-Methyl-2-pentene	1.96	0.95	3.88	4.35	8.59	6.17	1.98	1.21	0.99	0.41
trans-3-Methyl-2-pentene	1.34	0.63	2.67	2.87	5.79	4.24	1.42	0.85	0.66	0.26
cis-2-Hexene	0.19	0.42	0.39	0.41	0.71	3.01	0.21	0.13	0.10	0.15
cis-3-Methyl-2-pentene	1.54	0.78	3.25	3.53	7.27	5.09	1.62	0.98	0.70	0.38
Methylcyclopentane	5.59	2.85	13.99	14.01	23.60	13.78	5.70	4.10	2.94	3.06
2,4-Dimethylpentane	2.11	0.98	4.64	4.79	7.73	4.77	2.13	1.30	0.93	0.56
Benzene	17.36	8.81	32.28	31.05	47.61	28.14	19.94	10.25	5.62	3.57

Table B1:CONCENTRATIONS ($\mu g/m^3$) of VOC by SAMPLE - GVRD 1988

	BPSY	BPSY	BPSY	BPSY	BPSY	BPSY	BPSY	BPSY	FH	FH
	20-Oct-88 1800-2100	22-Oct-88 0600-0900	27-Oct-88 0600-0900	28-Oct-88 0600-0900	28-Oct-88 1800-2100	29-Oct-88 1800-2100	31-Oct-88 0600-0900	4-Nov-88 0600-0900	7-Aug-88 0600-0900	13-Aug-88 0600-0900
Cyclohexane	1.08	0.62	3.19	3.42	3.98	2.08	0.96	0.80	0.54	0.46
2-Methylhexane	4.63	2.26	8.20	8.49	17.99	13.33	4.73	2.96	1.60	1.03
2,3-Dimethylpentane	2.29	1.06	4.82	4.95	8.35	5.18	2.27	1.47	0.74	0.52
3-Methylhexane	7.05	3.69	10.50	10.71	22.20	15.59	5.80	3.91	4.19	2.85
trans-1,3-Dimethylcyclohexane	1.00	0.49	2.35	2.40	4.50	3.09	1.16	0.73	0.34	0.22
cis-1,3-Dimethylcyclohexane	2.26	1.05	4.44	4.50	9.11	5.90	2.21	1.39	0.57	0.34
2,2,4-Trimethylpentane	3.76	1.80	8.04	7.57	9.84	4.70	2.85	1.86	1.21	0.84
Heptane	4.32	2.03	7.82	8.19	15.38	10.69	3.92	2.49	1.08	0.82
trans-2-Heptene	0.82	0.42	1.27	1.17	2.90	2.48	0.80	0.53	0.24	0.30
cis-2-Heptene	0.42	0.24	1.80	1.99	4.04	3.25	1.20	0.77	0.23	0.71
Methylcyclohexane	1.80	0.89	4.99	5.96	7.25	4.54	1.71	1.26	0.54	1.02
2,5-Dimethylhexane	0.86	0.43	1.43	1.42	2.45	1.71	0.90	0.46	0.16	0.18
2,4-Dimethylhexane	1.58	0.83	3.04	2.96	5.54	3.91	1.63	0.91	0.31	0.31
2,3,4-Trimethylpentane	2.46	1.08	3.49	3.47	7.74	5.30	2.37	1.15	0.31	0.19
Toluene	41.62	20.46	91.05	87.84	111.87	69.63	44.81	23.49	7.01	5.59
2-Methylheptane	2.27	0.91	3.23	3.21	8.46	5.14	2.43	1.31	0.37	0.38
4-Methylheptane	0.90	0.32	0.85	0.79	3.45	1.76	1.02	0.49	0.00	0.00
3-Methylheptane	2.57	0.92	3.41	3.40	9.88	6.12	2.91	1.47	0.37	0.39
2,2,5-Trimethylhexane	1.83	0.90	0.77	0.57	1.75	0.79	0.80	0.51	1.85	1.67
Octane	2.10	0.94	3.72	3.85	8.06	5.75	2.15	1.10	0.35	0.37
Ethylbenzene	5.53	2.79	11.60	10.17	17.91	12.51	6.63	3.52	0.82	0.79
2,3-dimethylheptane	0.54	0.25	1.02	0.76	1.82	1.24	0.48	0.28	0.27	0.26
m-p-Xylene	20.92	10.77	43.18	39.17	66.58	48.22	24.65	13.62	2.66	2.96
4-Methyloctane	0.97	0.48	1.91	1.62	4.21	3.26	1.06	0.59	0.14	0.17
3-Methyloctane	0.25	0.07	0.50	0.38	1.49	1.24	0.23	0.15	0.00	0.00
Styrene	1.11	0.45	3.39	2.89	3.44	1.22	1.91	1.78	0.00	0.00
o-Xylene	7.52	3.57	15.36	13.82	23.97	17.30	8.27	4.81	0.90	0.99
Nonane	2.30	0.95	7.90	4.24	7.10	4.72	1.50	2.32	1.72	0.76
iso-Propylbenzene	0.76	0.32	1.33	1.08	2.70	2.00	0.61	0.40	0.45	0.22
n-Propylbenzene	1.92	0.93	3.23	2.74	5.39	4.07	1.92	1.25	0.51	0.42
4-Ethyltoluene	5.82	3.00	10.30	9.37	18.54	14.95	7.58	4.07	0.89	0.96
3-Ethyltoluene	3.98	1.89	5.97	5.48	10.74	8.10	4.15	2.29	0.63	0.54
1,3,5-Trimethylbenzene	3.93	1.93	6.66	6.07	12.41	9.29	4.73	2.60	0.55	0.65
2-Ethyltoluene	2.32	1.12	3.96	3.54	6.94	5.21	2.69	1.45	0.29	0.31
1,2,4-Trimethylbenzene	12.26	6.48	20.14	18.76	36.55	27.81	15.28	8.98	2.82	3.33
Decane	2.51	0.92	3.96	3.41	5.82	2.78	1.55	1.01	0.76	0.63
1,2,3-Trimethylbenzene	3.46	0.80	0.00	0.00	1.21	0.00	0.31	0.18	0.48	0.25

Table B1:CONCENTRATIONS ($\mu g/m^3$) of VOC by SAMPLE - GVRD 1988

	BPSY	BPSY	BPSY	BPSY	BPSY	BPSY	BPSY	BPSY	FH	FH
	20-Oct-88 1800-2100	22-Oct-88 0600-0900	27-Oct-88 0600-0900	28-Oct-88 0600-0900	28-Oct-88 1800-2100	29-Oct-88 1800-2100	31-Oct-88 0600-0900	4-Nov-88 0600-0900	7-Aug-88 0600-0900	13-Aug-88 0600-0900
p-Cymene	4.31	1.97	8.74	8.14	12.56	9.02	4.87	2.70	1.43	0.00
Indane	1.62	0.79	2.73	2.39	5.14	5.42	2.34	0.76	0.38	0.35
1,3-Diethylbenzene/n-Butylbenzen	3.46	1.68	6.58	6.08	10.15	7.73	5.54	2.02	0.83	0.87
1,4-Diethylbenzene	3.55	1.65	5.70	5.22	10.97	9.44	4.59	2.25	0.40	0.41
1,2-Diethylbenzene	1.00	0.43	1.35	1.15	2.56	2.11	0.95	0.43	0.37	0.19
Undecane	2.53	1.03	3.78	3.55	3.40	1.82	1.79	1.14	0.93	1.27
Dodecane	8.36	5.73	14.77	15.84	20.97	18.83	13.65	5.48	3.63	4.74
Trichlorofluoromethane	2.75	1.84	2.84	2.20	4.39	2.26	1.77	1.82	1.40	1.56
Dichloromethane	2.84	1.88	4.31	5.29	10.16	4.50	1.54	2.06	1.64	2.24
Chloroform	0.67	0.37	0.67	0.49	1.08	0.60	0.25	0.18	0.67	0.34
1,1,1-Trichloroethane	2.68	8.23	11.42	9.11	7.75	3.21	3.04	4.37	1.31	1.16
Carbontetrachloroide	1.16	0.80	0.82	0.76	1.45	0.88	0.76	0.68	1.00	3.47
Trichloroethylene	1.21	0.22	1.81	1.70	7.85	0.56	0.13	0.26	0.34	1.01
Tetrachloroethylene	2.36	1.25	6.36	2.32	16.77	0.88	2.33	1.13	0.27	0.72
1,4-Dichlorobenzene	5.76	4.45	6.58	7.57	15.85	4.23	1.53	0.92	0.52	2.49
SampleSite	BPSY	BPSY	BPSY	BPSY	BPSY	BPSY	BPSY	BPSY	FH	FH
SampleID#	BVAN79	BVAN80	BVAN92	BVAN96	BVAN114	BVAN119	BVAN105	BVAN130	BVAN18	BVAN28
Canister#	EPS60	EPS61	EPS62	MOE19	MOE14	EPS3	EPS45	EPS44	GVRD005	EPS11
SampleDate	20-Oct-88	22-Oct-88	27-Oct-88	28-Oct-88	28-Oct-88	29-Oct-88	31-Oct-88	4-Nov-88	7-Aug-88	13-Aug-88
SampleTime	1800-2100	0600-0900	0600-0900	0600-0900	1800-2100	1800-2100	0600-0900	0600-0900	0600-0900	0600-0900

Table B1:CONCENTRATIONS ($\mu g/m^3$) of VOC by SAMPLE - GVRD 1988

	FH 19-Aug-88 0600-0900	FH 25-Aug-88 0600-0900	FH 31-Aug-88 0600-0900	FH 2-Sep-88 0600-0900	FH 8-Sep-88 0600-0900	FH 12-Sep-88 0600-0900	FH 18-Sep-88 0600-0900	FH 24-Sep-88 0600-0900	FH 27-Sep-88 0600-0900	FH 28-Sep-88 0900-1200
Propylene	0.85	0.62	2.73	3.16	1.32	2.50	1.56	2.65	7.20	4.36
Propane	1.98	1.57	12.98	30.79	3.27	10.61	5.73	9.31	11.23	25.11
1-Propyne	0.20	0.00	0.00	0.52	0.23	0.00	0.28	0.52	0.86	0.00
Isobutane	4.07	2.57	48.21	17.23	2.00	27.78	17.36	43.17	1.73	32.99
1-Butene/Isobutene	2.33	1.53	13.39	5.78	2.27	7.42	5.36	11.94	10.41	20.09
1,3-Butadiene	0.31	0.10	1.17	0.54	0.52	1.10	0.61	1.14	2.54	2.07
Butane	6.13	8.17	187.17	51.15	10.00	82.39	30.92	90.45	6.42	152.61
trans-2-Butene	0.76	0.60	14.97	1.89	0.53	4.03	3.41	9.83	0.73	17.48
2,2-Dimethylpropane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1-Butyne	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
cis-2-Butene	0.59	0.38	9.31	1.26	0.38	2.69	2.25	6.41	0.74	11.02
2-Methyl-1-butene	0.11	0.09	2.00	0.41	0.11	0.70	0.38	1.05	0.52	1.72
2-Methylbutane	9.61	11.04	184.40	46.16	9.25	110.82	30.26	83.21	5.64	114.45
1-Pentene	0.36	0.12	4.49	1.12	0.11	1.60	0.82	2.29	2.09	3.42
2-Methyl-1-butene	0.16	0.00	3.27	0.55	0.00	0.86	0.62	1.66	0.38	2.61
Pentane	6.35	4.86	117.78	26.14	7.50	52.99	15.30	37.99	4.62	58.77
Isoprene	0.26	0.46	1.60	1.92	0.56	1.44	0.52	0.75	0.39	1.19
trans-2-Pentene	0.55	0.69	8.70	1.09	0.44	2.21	1.66	4.19	0.81	7.59
cis-2-Pentene	0.24	0.17	4.41	0.52	0.24	1.12	0.82	2.14	0.43	3.89
2-Methyl-2-butene	0.88	0.71	15.91	1.62	0.72	3.56	3.10	7.63	1.21	14.27
2,2-Dimethylbutane	0.34	0.23	4.06	1.25	0.51	1.81	0.71	1.70	0.26	2.44
3-Methyl-1-pentene	0.00	0.00	0.48	0.19	0.00	0.20	0.13	0.26	0.17	0.50
Cyclopentane	0.52	0.48	9.41	1.94	0.65	4.11	1.27	2.89	0.36	4.09
2,3-Dimethylbutane	0.57	0.50	10.44	2.37	0.75	4.37	1.61	4.08	0.49	5.49
2-Methylpentane	3.73	3.65	53.65	12.51	4.09	23.00	8.31	18.78	3.19	27.02
3-Methylpentane	1.88	1.66	29.84	7.83	2.45	13.66	4.91	11.02	1.94	17.69
1-Hexene	0.24	0.16	1.95	0.70	0.15	0.87	0.47	1.18	2.57	2.22
Hexane	4.00	3.04	33.98	10.26	4.00	15.75	5.56	12.33	2.61	26.51
trans-2-Hexene	0.18	0.13	1.81	0.39	0.09	0.35	0.43	0.96	0.38	1.76
2-Methyl-2-pentene	0.24	0.15	2.65	0.52	0.17	0.66	0.60	1.38	0.45	2.65
trans-3-Methyl-2-pentene	0.17	0.10	1.66	0.26	0.12	0.39	0.41	0.88	0.31	1.69
cis-2-Hexene	0.00	0.00	1.14	0.16	0.00	0.33	0.22	0.12	0.11	0.25
cis-3-Methyl-2-pentene	0.22	0.11	1.91	0.29	0.23	0.64	0.44	1.03	0.25	1.93
Methylcyclopentane	1.83	2.14	30.95	4.45	1.90	9.14	4.67	9.51	1.02	11.38
2,4-Dimethylpentane	0.33	0.22	4.51	0.97	0.40	1.70	0.90	2.16	0.35	3.06
Benzene	3.82	1.56	23.45	9.26	4.21	13.89	6.25	12.24	8.23	18.80

Table B1:CONCENTRATIONS ($\mu g/m^3$) of VOC by SAMPLE - GVRD 1988

	FH	FH	FH	FH	FH	FH	FH	FH	FH	FH
	19-Aug-88 0600-0900	25-Aug-88 0600-0900	31-Aug-88 0600-0900	2-Sep-88 0600-0900	8-Sep-88 0600-0900	12-Sep-88 0600-0900	18-Sep-88 0600-0900	24-Sep-88 0600-0900	27-Sep-88 0600-0900	28-Sep-88 0900-1200
Cyclohexane	0.44	0.34	6.49	0.88	0.56	1.77	1.16	2.01	0.47	2.56
2-Methylhexane	0.68	0.49	7.98	2.19	0.98	3.34	1.76	3.58	0.92	5.12
2,3-Dimethylpentane	0.35	0.23	4.27	1.28	0.57	1.84	0.95	2.23	0.41	2.96
3-Methylhexane	2.57	6.28	11.73	4.66	2.88	5.95	3.36	5.03	3.57	7.58
trans-1,3-Dimethylcyclohexane	0.24	0.26	3.21	0.56	0.28	0.98	0.67	1.17	0.19	1.58
cis-1,3-Dimethylcyclohexane	0.33	0.45	4.17	0.72	0.49	1.71	0.94	1.77	2.17	2.95
2,2,4-Trimethylpentane	1.11	0.67	6.15	2.77	1.67	3.31	2.00	5.08	0.80	4.92
Heptane	0.91	0.41	7.51	2.15	1.31	3.04	1.78	3.37	1.42	4.92
trans-2-Heptene	0.52	0.74	0.85	0.38	0.24	0.43	0.34	0.41	0.22	0.75
cis-2-Heptene	0.37	0.32	0.51	0.59	1.06	0.40	1.24	0.33	1.11	0.58
Methylcyclohexane	1.21	0.58	5.75	1.46	1.44	2.33	1.89	2.58	0.75	3.67
2,5-Dimethylhexane	0.15	0.00	0.83	0.48	0.20	0.59	0.34	0.77	0.28	0.85
2,4-Dimethylhexane	0.30	0.20	1.93	0.84	0.41	1.13	0.62	1.38	0.62	1.76
2,3,4-Trimethylpentane	0.32	0.00	1.51	0.64	0.41	0.98	0.59	2.07	0.33	1.96
Toluene	29.32	2.94	31.77	27.78	20.82	35.08	12.04	22.35	11.79	42.26
2-Methylheptane	0.62	0.33	2.54	1.06	0.75	1.61	0.80	1.59	1.24	1.80
4-Methylheptane	0.13	0.00	0.90	0.31	0.21	0.62	0.21	0.56	0.00	0.40
3-Methylheptane	0.48	0.16	2.31	0.81	0.63	1.52	0.57	1.53	0.72	1.67
2,2,5-Trimethylhexane	1.41	4.63	1.89	1.69	1.96	1.99	1.18	1.08	1.58	0.87
Octane	0.51	0.44	2.37	1.02	0.71	1.41	0.90	1.57	1.37	2.23
Ethylbenzene	0.71	0.41	4.03	4.27	1.63	3.50	1.55	2.74	1.72	4.37
2,3-dimethylheptane	0.23	0.58	0.58	0.50	0.27	0.41	0.37	0.35	0.20	0.50
m-p-Xylene	2.57	1.77	14.65	13.64	5.52	11.76	5.45	10.01	4.77	16.60
4-Methyloctane	0.50	0.16	0.78	0.51	0.30	0.59	0.35	0.52	0.33	0.84
3-Methyloctane	0.00	0.00	0.08	0.00	1.00	0.09	0.00	0.08	0.00	0.12
Styrene	0.00	0.00	0.38	0.00	0.45	0.73	0.00	0.00	0.52	0.00
o-Xylene	0.90	0.50	4.92	4.59	1.91	4.26	1.81	3.47	1.96	5.26
Nonane	1.08	0.58	3.32	5.67		3.44	2.44	3.11	2.90	1.96
iso-Propylbenzene	0.14	0.15	0.30	0.23	0.23	0.58	0.11	0.25	0.12	0.52
n-Propylbenzene	0.54	0.68	1.46	1.20	0.00	1.15	0.63	1.05	0.84	1.40
4-Ethyltoluene	0.94	0.76	3.98	2.38	2.42	3.10	1.44	2.54	1.29	4.06
3-Ethyltoluene	0.62	0.43	2.44	1.67	0.00	2.07	1.06	1.80	1.01	2.57
1,3,5-Trimethylbenzene	0.70	0.34	2.26	1.11	1.87	1.70	0.93	1.52	1.07	2.68
2-Ethyltoluene	0.39	0.66	1.47	0.83	0.39	1.23	0.52	0.98	0.60	1.49
1,2,4-Trimethylbenzene	3.30	2.59	9.14	5.51	4.82	6.90	4.16	6.13	3.40	8.75
Decane	0.66	0.89	2.17	1.50	1.67	1.73	1.06	1.17	1.21	2.23
1,2,3-Trimethylbenzene	0.00	0.26	0.00	0.00	0.88	0.70	0.43	0.82	0.67	0.00

Table B1:CONCENTRATIONS ($\mu g/m^3$) of VOC by SAMPLE - GVRD 1988

	FH	FH	FH	FH	FH	FH	FH	FH	FH	FH
	19-Aug-88 0600-0900	25-Aug-88 0600-0900	31-Aug-88 0600-0900	2-Sep-88 0600-0900	8-Sep-88 0600-0900	12-Sep-88 0600-0900	18-Sep-88 0600-0900	24-Sep-88 0600-0900	27-Sep-88 0600-0900	28-Sep-88 0900-1200
p-Cymene	1.82	0.89	3.32	2.57	1.68	2.32	1.40	1.75	1.60	3.47
Indane	0.39	0.34	1.13	0.62	0.75	0.90	0.53	0.63	0.79	1.04
1,3-Diethylbenzene/n-Butylbenzen	0.73	0.35	2.19	1.01	1.30	1.89	1.15	1.41	1.73	2.36
1,4-Diethylbenzene	0.50	0.58	2.30	1.03	1.21	1.75	0.97	1.21	1.82	2.29
1,2-Diethylbenzene	0.40	0.26	0.79	0.33	0.80	0.59	0.39	0.29	0.86	0.60
Undecane	1.52	1.09	2.26	1.56	1.93	1.74	1.13	0.63	1.93	1.91
Dodecane	5.50	2.84	5.60	3.94	4.05	4.53	4.72	3.55	2.65	4.88
Trichlorofluoromethane	1.26	1.25	1.81	2.18	1.56	1.79	1.80	1.95	1.53	2.02
Dichloromethane	2.76	1.59	5.72	3.60	2.61	3.05	2.19	2.77	1.61	2.66
Chloroform	0.52	0.22	0.43	0.00	0.23	0.36	0.26	0.35	0.38	0.19
1,1,1-Trichloroethane	0.96	0.94	4.45	5.03	1.44	3.04	1.56	3.20	2.55	15.04
Carbontetrachloroide	1.10	0.43	0.80	1.43	0.57	0.81	0.65	0.78	0.74	0.67
Trichloroethylene	0.83	0.21	1.76	2.73	0.59	1.37	0.33	0.69	1.97	0.85
Tetrachloroethylene	0.20	0.37	1.17	2.02	0.70	1.19	0.62	0.87	1.23	4.26
1,4-Dichlorobenzene	0.00	0.75	0.65	2.59	0.00	0.00	0.00	0.00	0.00	0.00
SampleSite	FH	FH	FH	FH	FH	FH	FH	FH	FH	FH
SampleID#	BVAN2	BVAN7	BVAN31	BVAN32	BVAN15	BVAN29	BVAN34	BVAN45	BVAN43	BVAN35
Canister#	GVRD010	EPS61	GVRD007	EPS10	MOE19	MOE20	MOE15	MOE16	EPS45	EPS51
SampleDate	19-Aug-88	25-Aug-88	31-Aug-88	2-Sep-88	8-Sep-88	12-Sep-88	18-Sep-88	24-Sep-88	27-Sep-88	28-Sep-88
SampleTime	0600-0900	0600-0900	0600-0900	0600-0900	0600-0900	0600-0900	0600-0900	0600-0900	0600-0900	0900-1200

Table B1:CONCENTRATIONS ($\mu g/m^3$) of VOC by SAMPLE - GVRD 1988

	FH	FH	FH	FH	FH	FH	FH	FH	FH	FH
	30-Sep-88 0600-0900	4-Oct-88 0600-0900	9-Oct-88 0600-0900	12-Oct-88 0600-0900	15-Oct-88 0600-0900	18-Oct-88 0815-1115	20-Oct-88 1800-2100	22-Oct-88 0600-0900	24-Oct-88 1800-2100	27-Oct-88 0600-0900
Propylene	5.00	4.95	3.13	0.92	0.43	3.17	3.52	0.57	3.30	6.41
Propane	17.51	19.09	15.01	2.74	1.14	16.67	8.23	1.41	13.49	28.97
1-Propyne	0.81	1.11	0.91	0.19	0.00	0.64	0.66	0.00	0.45	1.61
Isobutane	15.46	11.23	31.44	4.24	102.97	38.73	12.24	9.09	15.10	14.83
1-Butene/Isobutene	8.11	14.52	17.61	1.96	5.79	9.75	5.06	1.27	3.06	8.30
1,3-Butadiene	1.98	1.29	0.62	0.35	0.37	1.64	1.33	0.15	0.89	2.32
Butane	32.65	95.73	174.82	13.75	105.28	120.45	35.39	14.46	33.55	48.41
trans-2-Butene	4.49	10.96	16.28	0.93	9.91	11.41	2.97	1.48	1.38	5.26
2,2-Dimethylpropane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00
1-Butyne	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
cis-2-Butene	2.84	6.84	0.00	0.55	5.23	6.57	1.83	0.87	0.98	3.51
2-Methyl-1-butene	0.65	1.45	1.67	0.12	0.71	1.18	0.39	0.20	0.22	0.80
2-Methylbutane	46.32	84.40	137.68	11.99	90.69	100.43	25.37	14.73	21.03	63.53
1-Pentene	1.38	3.46	3.29	0.29	1.42	2.07	0.91	0.37	0.49	1.65
2-Methyl-1-butene	1.04	2.31	2.48	0.20	1.29	1.92	0.69	0.33	0.38	1.28
Pentane	29.68	49.97	68.28	6.49	36.96	48.87	17.10	7.52	15.22	46.33
Isoprene	1.21	1.46	1.20	0.21	0.43	1.07	0.73	0.11	0.53	1.72
trans-2-Pentene	2.77	6.57	6.80	0.47	3.28	5.11	1.85	0.76	0.95	3.60
cis-2-Pentene	1.41	3.45	3.54	0.23	1.47	2.63	0.93	0.39	0.47	1.81
2-Methyl-2-butene	4.77	11.90	12.85	0.92	5.43	9.65	3.41	1.42	1.68	6.61
2,2-Dimethylbutane	1.21	1.95	2.28	0.32	1.44	1.56	0.78	0.21	0.55	1.73
3-Methyl-1-pentene	0.25	0.44	0.42	0.19	0.16	0.35	0.16	0.07	0.12	0.25
Cyclopentane	2.43	4.06	5.13	0.00	2.72	3.73	1.49	0.70	1.21	3.87
2,3-Dimethylbutane	2.90	5.11	5.86	0.52	3.20	5.32	1.81	0.72	1.17	3.76
2-Methylpentane	14.50	23.84	28.47	3.64	15.53	20.35	8.85	3.68	6.41	19.58
3-Methylpentane	8.47	14.94	16.33	2.00	8.43	11.84	5.33	2.07	3.77	11.74
1-Hexene	0.94	1.68	1.36	0.19	0.55	1.12	0.70	0.18	0.33	1.22
Hexane	11.11	27.51	17.73	2.59	7.12	14.69	7.25	2.35	6.05	16.68
trans-2-Hexene	0.95	1.77	1.41	0.14	0.57	1.21	0.66	0.18	0.32	1.24
2-Methyl-2-pentene	1.25	2.51	2.18	0.19	0.92	1.83	0.90	0.24	0.45	1.73
trans-3-Methyl-2-pentene	0.83	1.65	1.37	0.16	0.56	1.19	0.59	0.13	0.31	1.19
cis-2-Hexene	0.56	0.24	0.89	0.00	0.29	0.15	0.42	0.07	0.04	0.18
cis-3-Methyl-2-pentene	0.99	1.98	1.63	0.13	0.66	1.42	0.74	0.16	0.33	1.41
Methylcyclopentane	6.06	10.82	13.86	2.00	5.61	8.62	3.70	2.57	3.12	8.98
2,4-Dimethylpentane	1.69	3.30	2.97	0.49	1.10	4.14	1.33	0.39	0.75	2.49
Benzene	15.32	18.78	16.90	4.06	8.25	12.86	9.25	2.64	6.16	18.99

Table B1:CONCENTRATIONS ($\mu g/m^3$) of VOC by SAMPLE - GVRD 1988

	FH	FH	FH	FH	FH	FH	FH	FH	FH	FH
	30-Sep-88 0600-0900	4-Oct-88 0600-0900	9-Oct-88 0600-0900	12-Oct-88 0600-0900	15-Oct-88 0600-0900	18-Oct-88 0815-1115	20-Oct-88 1800-2100	22-Oct-88 0600-0900	24-Oct-88 1800-2100	27-Oct-88 0600-0900
Cyclohexane	1.79	2.73	2.95	0.58	0.76	2.11	1.23	0.72	1.18	3.00
2-Methylhexane	3.71	4.93	4.64	0.85	1.92	3.93	2.38	0.72	1.65	5.12
2,3-Dimethylpentane	2.02	3.16	2.75	0.41	0.87	6.43	1.54	0.42	1.00	2.94
3-Methylhexane	5.76	6.70	6.81	1.45	4.00	5.25	3.31	1.64	2.47	6.48
trans-1,3-Dimethylcyclohexane	1.11	1.70	1.61	0.72	0.46	1.32	0.68	0.47	0.63	1.76
cis-1,3-Dimethylcyclohexane	1.97	2.93	2.47	0.59	0.95	2.00	1.30	0.57	0.92	2.87
2,2,4-Trimethylpentane	4.26	7.36	5.05	0.94	0.85	9.26	3.03	0.96	2.53	5.57
Heptane	3.78	5.35	4.29	0.80	1.14	3.84	2.35	0.91	2.06	6.07
trans-2-Heptene	0.56	0.68	0.56	0.14	0.43	0.57	0.33	0.06	0.21	0.57
cis-2-Heptene	0.39	0.97	0.92	0.00	0.24	0.84	0.17	0.05	0.14	0.46
Methylcyclohexane	2.44	4.56	3.80	0.58	0.62	3.47	1.60	1.27	1.86	4.85
2,5-Dimethylhexane	0.68	1.02	0.89	0.37	0.20	0.85	0.47	0.16	0.43	1.10
2,4-Dimethylhexane	1.47	2.09	1.80	0.00	0.49	1.92	0.96	0.32	0.77	2.07
2,3,4-Trimethylpentane	1.86	2.83	1.78	0.26	0.32	2.41	1.29	0.17	0.63	2.12
Toluene	36.24	44.49	30.16	9.77	11.90	32.81	21.94	4.01	13.52	41.11
2-Methylheptane	2.12	2.68	2.05	0.45	0.54	1.90	1.30	0.36	0.73	2.99
4-Methylheptane	0.83	1.01	0.78	0.14	0.20	0.90	0.49	0.08	0.16	1.48
3-Methylheptane	2.06	2.56	1.92	0.35	0.51	1.57	1.23	0.25	0.65	2.78
2,2,5-Trimethylhexane	1.14	0.88	1.18	0.60	1.58	0.50	0.61	0.64	0.36	0.76
Octane	2.11	2.86	2.06	0.51	0.47	1.94	1.20	0.64	0.95	3.09
Ethylbenzene	4.88	6.18	4.24	0.77	1.01	4.26	3.51	0.52	1.91	5.97
2,3-dimethylheptane	0.49	0.75	0.59	0.00	0.19	0.59	0.37	0.22	0.24	0.57
m-p-Xylene	16.92	22.11	14.33	2.87	3.70	15.25	12.49	2.07	6.71	22.98
4-Methyloctane	0.84	1.14	0.85	0.46	0.17	0.88	0.61	0.22	0.36	1.07
3-Methyloctane	0.12	0.16	0.16	1.45	0.00	0.17	0.08	0.02	0.05	0.22
Styrene	1.70	3.96	1.12	0.93	0.00	2.76	1.45	0.06	0.79	1.76
o-Xylene	6.16	7.72	5.44	6.49	1.28	5.50	4.33	0.70	2.54	8.16
Nonane	3.39	3.01	2.91	1.62		3.18	3.11	3.36	2.34	3.97
iso-Propylbenzene	0.49	0.49	0.58	0.15	0.20	0.61	0.41	0.05	0.26	0.57
n-Propylbenzene	1.60	1.27	1.27	0.42	0.43	1.34	1.27	0.41	0.68	1.40
4-Ethyltoluene	4.47	5.01	3.61	0.86	0.89	3.69	3.38	0.74	1.88	5.37
3-Ethyltoluene	2.98	3.40	2.84	0.57	0.60	2.79	2.86	0.54	1.18	3.01
1,3,5-Trimethylbenzene	2.74	2.64	2.35	0.50	0.46	2.55	2.18	0.47	1.18	2.85
2-Ethyltoluene	1.73	1.44	1.47	0.31	0.24	1.47	1.42	0.26	0.74	1.63
1,2,4-Trimethylbenzene	9.85	11.86	8.18	3.39	2.57	8.75	8.21	1.94	4.63	11.44
Decane	2.29	2.93	2.46	0.49	0.50	2.13	2.62	0.63	0.90	1.96
1,2,3-Trimethylbenzene	1.22	2.69	2.08	0.00	0.38	1.74	3.71	0.21	0.00	0.00

Table B1:CONCENTRATIONS ($\mu g/m^3$) of VOC by SAMPLE - GVRD 1988

	FH	FH	FH	FH	FH	FH	FH	FH	FH	FH
	30-Sep-88 0600-0900	4-Oct-88 0600-0900	9-Oct-88 0600-0900	12-Oct-88 0600-0900	15-Oct-88 0600-0900	18-Oct-88 0815-1115	20-Oct-88 1800-2100	22-Oct-88 0600-0900	24-Oct-88 1800-2100	27-Oct-88 0600-0900
p-Cymene	3.30	5.23	3.47	1.13	0.85	3.30	3.11	0.85	1.87	4.21
Indane	1.10	1.38	1.20	0.28	0.33	1.13	0.82	0.20	0.46	1.23
1,3-Diethylbenzene/n-Butylbenzen	2.45	3.01	2.45	0.48	0.52	2.50	1.83	0.28	1.07	3.10
1,4-Diethylbenzene	2.28	3.00	2.11	0.44	0.42	2.04	1.86	0.29	0.92	2.88
1,2-Diethylbenzene	0.57	0.85	0.74	0.13	0.16	0.73	0.53	0.08	0.24	0.52
Undecane	1.34	2.72	1.92	0.63	0.39	1.60	1.32	0.12	0.51	1.55
Dodecane	6.37	7.42	6.05	3.51	2.17	7.29	3.95	1.45	3.51	7.37
Trichlorofluoromethane	2.22	2.33	4.93	1.90	1.54	1.92	2.07	1.48	1.67	2.09
Dichloromethane	3.07	3.73	3.28	1.57	1.81	2.78	2.26	0.00	1.54	2.40
Chloroform	0.95	1.45	0.83	0.35	0.22	0.44	0.96	0.33	0.46	0.43
1,1,1-Trichloroethane	6.06	4.60	2.99	1.66	1.27	9.35	2.98	1.16	2.45	4.87
Carbontetrachloroide	0.81	1.14	0.83	1.10	0.71	0.93	1.35	0.87	0.90	0.89
Trichloroethylene	1.33	3.17	0.93	0.35	0.19	0.46	0.81	0.18	0.44	1.35
Tetrachloroethylene	3.66	4.79	3.13	0.44	0.74	3.53	2.23	0.25	2.45	1.82
1,4-Dichlorobenzene	0.00	1.51	0.98	1.08	0.00	2.65	4.21	0.00	0.00	0.85
SampleSite	FH	FH	FH	FH	FH	FH	FH	FH	FH	FH
SampleID#	BVAN57	BVAN58	BVAN59	BVAN62	BVAN60	BVAN74	BVAN75	BVAN81	BVAN85	BVAN91
Canister#	EPS52	GVRD004	EPS57	EPS41	EPS49	EPS43	EPS23	GVRD002	GVRD008	MOE11
SampleDate	30-Sep-88	4-Oct-88	9-Oct-88	12-Oct-88	15-Oct-88	18-Oct-88	20-Oct-88	22-Oct-88	24-Oct-88	27-Oct-88
SampleTime	0600-0900	0600-0900	0600-0900	0600-0900	0600-0900	0815-1115	1800-2100	0600-0900	1800-2100	0600-0900

Table B1:CONCENTRATIONS ($\mu g/m^3$) of VOC by SAMPLE - GVRD 1988

	FH	FH	FH	FH	FH	FH	FH	FH	T11	STF
	28-Oct-88 0600-0900	28-Oct-88 1800-2100	29-Oct-88 1800-2100	31-Oct-88 0600-0900	2-Nov-88 0600-0900	2-Nov-88 2235-0135	4-Nov-88 1320-1620	4-Nov-88 0600-0900	29-Nov-88 24.00	20-Oct-88 1800-2100
Propylene	6.27	3.75	1.21	3.47	0.29	0.24	1.19	1.18	5.53	4.23
Propane	54.66	15.50	2.81	8.48	1.77	1.78	7.71	2.68	11.15	11.09
1-Propyne	0.00	0.85	0.25	0.58	0.00	0.00	0.21	0.21	0.71	0.77
Isobutane	66.41	20.35	5.11	66.74	19.21	12.88	55.33	9.43	11.81	19.53
1-Butene/Isobutene	134.59	2.81	1.54	13.58	1.24	1.28	11.38	1.83	5.83	3.38
1,3-Butadiene	4.13	1.30	0.44	1.64	0.07	0.07	0.57	0.46	1.72	1.61
Butane	373.80	57.73	11.52	130.34	9.09	9.30	185.10	17.80	22.45	50.69
trans-2-Butene	192.03	2.99	0.76	14.23	1.72	1.78	19.95	1.62	2.22	4.80
2,2-Dimethylpropane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1-Butyne	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
cis-2-Butene	146.07	1.90	0.55	8.37	1.11	1.11	11.37	0.98	1.46	2.92
2-Methyl-1-butene	25.26	0.46	0.10	1.33	0.19	0.20	1.73	0.17	0.28	0.56
2-Methylbutane	400.00	39.07	8.52	88.10	12.31	12.34	125.72	13.94	15.85	37.84
1-Pentene	53.26	0.92	0.25	2.72	0.37	0.38	3.18	0.36	0.67	1.26
2-Methyl-1-butene	32.41	0.60	0.17	2.36	0.35	0.27	2.74	0.33	0.59	1.13
Pentane	281.63	25.62	5.53	47.34	5.60	5.73	58.57	7.95	12.74	24.67
Isoprene	10.37	0.82	0.18	1.05	0.00	0.00	0.65	0.20	0.89	0.94
trans-2-Pentene	97.88	1.64	0.47	5.90	0.74	0.72	6.32	0.72	1.29	2.84
cis-2-Pentene	1.10	0.81	0.24	3.03	0.34	0.35	3.28	0.37	0.67	1.42
2-Methyl-2-butene	7.95	3.12	0.96	11.28	1.21	1.27	12.01	1.35	2.45	5.03
2,2-Dimethylbutane	19.55	0.91	0.27	1.37	0.21	0.16	1.33	0.30	1.04	0.96
3-Methyl-1-pentene	9.14	0.12	0.05	0.35	0.15	0.32	0.33	0.18	0.20	0.21
Cyclopentane	76.15	2.08	0.44	3.30	0.41	0.44	4.76	0.72	1.23	2.05
2,3-Dimethylbutane	0.00	2.10	0.46	3.63	0.41	0.44	4.16	0.66	1.34	2.33
2-Methylpentane	192.88	10.88	2.77	17.21	2.31	2.30	20.77	3.70	7.56	11.61
3-Methylpentane	146.27	6.53	1.62	9.62	1.21	1.16	11.15	2.12	4.24	6.88
1-Hexene	16.07	0.58	0.20	1.16	0.15	0.13	1.19	0.25	0.58	0.94
Hexane	159.47	9.57	4.32	10.29	1.47	1.75	10.56	2.35	7.18	10.35
trans-2-Hexene	15.10	0.54	0.16	1.28	0.10	0.14	1.07	0.11	0.56	0.94
2-Methyl-2-pentene	25.09	0.72	0.22	2.01	0.15	0.19	1.75	0.24	0.77	1.26
trans-3-Methyl-2-pentene	15.45	0.45	0.17	1.26	0.10	0.10	1.08	0.16	0.57	0.85
cis-2-Hexene	10.20	0.34	0.11	0.15	0.00	0.00	0.70	0.09	0.10	0.11
cis-3-Methyl-2-pentene	18.13	0.54	0.15	1.57	0.11	0.12	1.31	0.21	0.65	1.03
Methylcyclopentane	119.63	5.15	1.34	6.37	0.85	0.85	7.97	1.56	3.66	4.77
2,4-Dimethylpentane	29.71	1.29	0.32	1.93	0.20	0.21	1.68	0.36	1.09	1.62
Benzene	76.65	10.73	3.36	10.48	1.09	1.19	7.17	3.22	11.45	12.21

Table B1:CONCENTRATIONS ($\mu g/m^3$) of VOC by SAMPLE - GVRD 1988

	FH	FH	FH	FH	FH	FH	FH	FH	T11	STF
	28-Oct-88 0600-0900	28-Oct-88 1800-2100	29-Oct-88 1800-2100	31-Oct-88 0600-0900	2-Nov-88 0600-0900	2-Nov-88 2235-0135	4-Nov-88 1320-1620	4-Nov-88 0600-0900	29-Nov-88 24.00	20-Oct-88 1800-2100
Cyclohexane	15.21	1.80	0.29	1.12	0.12	0.12	1.30	0.32	1.00	1.40
2-Methylhexane	23.65	2.48	0.66	2.99	0.30	0.25	2.49	0.74	2.71	2.89
2,3-Dimethylpentane	26.49	1.48	0.38	1.77	0.25	0.22	1.36	0.39	1.44	1.73
3-Methylhexane	26.05	3.48	1.35	3.94	0.95	0.95	3.40	1.75	4.06	4.27
trans-1,3-Dimethylcyclohexane	8.05	0.92	0.19	0.77	0.00	0.00	0.75	0.18	0.60	0.81
cis-1,3-Dimethylcyclohexane	12.59	1.45	0.34	1.43	0.17	0.22	1.33	0.36	1.48	1.71
2,2,4-Trimethylpentane	29.64	3.07	0.82	2.39	0.40	0.40	1.93	0.69	1.65	3.12
Heptane	13.48	3.19	0.73	2.08	0.22	0.20	2.27	0.68	2.83	2.83
trans-2-Heptene	3.32	0.22	0.19	0.47	0.09	0.10	0.29	0.13	0.50	0.51
cis-2-Heptene	6.43	0.37	0.14	0.79	0.00	0.00	0.63	0.37	0.49	0.30
Methylcyclohexane	8.68	2.63	0.67	1.06	0.16	0.18	1.94	0.43	1.81	1.63
2,5-Dimethylhexane	2.37	0.50	0.12	0.36	0.00	0.00	0.29	0.11	0.40	0.52
2,4-Dimethylhexane	5.80	1.07	0.24	0.87	0.00	0.12	0.75	0.24	0.84	1.06
2,3,4-Trimethylpentane	8.62	0.96	0.22	1.11	0.21	0.00	0.64	0.30	0.81	1.30
Toluene	89.00	23.48	6.05	18.96	2.61	2.32	11.86	7.00	24.52	27.64
2-Methylheptane	5.20	1.62	0.26	0.89	0.17	0.00	1.09	0.30	1.40	1.10
4-Methylheptane	2.27	0.73	0.07	0.31	0.00	0.00	0.49	0.00	0.52	0.25
3-Methylheptane	5.51	1.41	0.29	0.91	0.10	0.00	0.85	0.29	1.71	1.14
2,2,5-Trimethylhexane	1.05	0.47	0.55	0.54	0.69	0.68	0.47	0.95	1.09	0.74
Octane	4.21	1.62	0.36	0.82	0.10	0.13	1.42	0.26	1.49	1.30
Ethylbenzene	9.76	3.37	0.83	2.55	0.19	0.17	1.56	0.93	4.05	4.00
2,3-dimethylheptane	0.80	0.37	0.12	0.24	0.09	0.00	0.42	0.14	0.38	0.39
m-p-Xylene	35.81	11.80	2.91	9.62	0.75	0.71	6.02	3.34	14.23	14.71
4-Methyloctane	1.54	0.62	0.14	0.43	0.00	0.00	0.69	0.12	0.68	0.68
3-Methyloctane	0.36	0.08	0.43	0.08	0.00	0.00	0.08	0.00	0.53	0.12
Styrene	1.81	0.96	0.16	0.74	0.00	0.65	0.69	0.99	1.14	1.82
o-Xylene	12.69	4.13	1.05	3.53	0.24	0.26	2.07	1.14	4.74	5.26
Nonane	3.18	1.81	0.92	2.48	0.00	0.94	4.07	11.99	6.12	5.95
iso-Propylbenzene	1.02	0.35	0.06	0.30	0.14	0.12	0.13	0.00	0.25	0.59
n-Propylbenzene	2.30	0.97	0.35	0.88	0.17	0.11	0.63	0.53	0.56	1.49
4-Ethyltoluene	7.94	3.04	0.95	2.74	0.37	0.20	1.58	1.04	2.84	4.01
3-Ethyltoluene	4.54	2.06	0.58	1.57	0.30	0.00	1.19	0.55	1.49	3.08
1,3,5-Trimethylbenzene	4.89	1.81	0.63	1.73	0.23	0.00	0.99	0.59	1.73	2.53
2-Ethyltoluene	2.91	1.21	0.34	1.03	0.31	0.95	0.58	0.31	1.12	1.57
1,2,4-Trimethylbenzene	14.87	6.76	2.55	6.15	1.30	0.98	3.34	2.42	15.23	9.06
Decane	2.72	1.83	0.37	0.81	0.15	0.16	1.54	0.26	2.12	2.60
1,2,3-Trimethylbenzene	0.33	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	2.86

Table B1:CONCENTRATIONS ($\mu g/m^3$) of VOC by SAMPLE - GVRD 1988

	FH	FH	FH	FH	FH	FH	FH	FH	T11	STF
	28-Oct-88 0600-0900	28-Oct-88 1800-2100	29-Oct-88 1800-2100	31-Oct-88 0600-0900	2-Nov-88 0600-0900	2-Nov-88 2235-0135	4-Nov-88 1320-1620	4-Nov-88 0600-0900	29-Nov-88 24.00	20-Oct-88 1800-2100
p-Cymene	5.09	2.92	1.05	2.05	0.27	0.27	2.03	0.87	1.04	3.62
Indane	1.70	0.82	0.18	0.63	0.00	0.00	0.37	0.20	1.27	1.16
1,3-Diethylbenzene/n-Butylbenzen	3.67	1.76	0.58	1.44	0.19	0.12	0.71	0.60	0.96	2.48
1,4-Diethylbenzene	3.64	1.87	0.62	1.32	0.16	0.20	0.83	0.46	2.41	2.40
1,2-Diethylbenzene	0.68	0.50	0.13	0.24	0.00	0.00	0.23	0.00	1.42	0.80
Undecane	1.49	1.72	0.41	0.60	0.13	0.00	0.85	0.00	2.36	2.58
Dodecane	7.23	6.87	3.68	3.62	1.33	1.18	2.27	1.66	11.89	5.98
Trichlorofluoromethane	4.65	1.84	1.56	1.67	1.37	1.43	1.57	1.45	2.87	6.82
Dichloromethane	9.52	2.87	1.18	1.92	1.32	1.41	2.05	1.28	6.06	3.02
Chloroform	0.27	0.37	0.40	0.20	0.20	0.34	0.17	0.17	0.58	0.74
1,1,1-Trichloroethane	6.38	2.77	1.47	2.65	1.02	1.35	2.35	1.31	4.03	3.80
Carbontetrachloroide	0.85	0.78	0.94	0.82	0.73	0.75	0.82	0.82	1.00	1.12
Trichloroethylene	0.87	0.68	0.33	0.17	0.25	0.24	1.52	0.17	1.71	1.16
Tetrachloroethylene	5.56	3.64	0.38	0.48	0.13	0.19	0.55	0.71	2.03	2.49
1,4-Dichlorobenzene	0.62	0.00	0.69	0.00	0.00	0.00	6.27	0.67	1.65	0.44
SampleSite	FH	FH	FH	FH	FH	FH	FH	FH	RS	STF
SampleID#	BVAN95	BVAN118	BVAN120	BVAN103	BVAN129	BVAN133	BVAN131	BVAN132	BVAN137	BVAN76
Canister#	EPS63	MOE10	EPS17	MOE17	EPS52	EPS32	GVRD004	EPS57	EPS5	EPS2
SampleDate	28-Oct-88	28-Oct-88	29-Oct-88	31-Oct-88	2-Nov-88	2-Nov-88	4-Nov-88	4-Nov-88	29-Nov-88	20-Oct-88
SampleTime	0600-0900	1800-2100	1800-2100	0600-0900	0600-0900	2235-0135	1320-1620	0600-0900	24.00	1800-2100

Table B1:CONCENTRATIONS ($\mu g/m^3$) of VOC by SAMPLE - GVRD 1988

	STE 22-Oct-88 0600-0900	STE 24-Oct-88 1800-2100	STE 27-Oct-88 0600-0900	STE 28-Oct-88 0600-0900	STE 28-Oct-88 1800-2100	STE 29-Oct-88 1800-2100	STE 31-Oct-88 0600-0900	STE 4-Nov-88	SURRY 11-Dec-88 24.00	T17 17-Dec-88 24.00
Propylene	0.77	3.60	4.97	3.84	3.40	2.07	2.81	1.53	1.55	11.80
Propane	1.23	9.36	23.35	21.59	13.12	4.35	7.52	2.89	3.20	33.24
1-Propyne	0.00	0.53	1.37	1.89	0.00	0.50	0.57	0.24	0.24	2.90
Isobutane	3.08	7.06	26.01	380.58	18.23	15.42	29.34	3.78	2.97	28.68
1-Butene/Isobutene	0.46	3.35	4.06	42.90	5.18	4.56	3.26	1.53	1.76	15.12
1,3-Butadiene	0.00	1.09	1.56	3.81	1.31	0.91	1.17	0.48	0.47	4.76
Butane	5.20	14.39	155.69	343.38	58.28	44.19	37.83	6.80	6.43	57.10
trans-2-Butene	0.50	1.62	13.69	87.50	2.98	3.16	9.71	0.39	0.38	6.97
2,2-Dimethylpropane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1-Butyne	0.00	0.03	0.00	0.55	0.00	0.00	0.00	0.00	0.00	0.25
cis-2-Butene	0.37	1.00	8.37	50.08	1.89	2.03	6.11	0.29	0.32	4.40
2-Methyl-1-butene	0.06	0.23	1.67	7.89	0.48	0.38	0.98	0.08	0.06	1.00
2-Methylbutane	4.95	18.28	125.98	47.73	42.24	30.11	64.71	5.20	4.36	55.76
1-Pentene	0.17	0.53	3.48	14.54	1.00	0.85	1.99	0.20	0.19	2.16
2-Methyl-1-butene	0.11	0.36	2.53	12.01	0.57	0.87	1.28	0.12	0.10	1.82
Pentane	3.91	12.95	76.58	192.41	28.41	19.49	35.36	4.02	4.10	46.91
Isoprene	0.14	0.54	1.86	3.90	0.87	0.68	0.88	0.26	0.26	2.69
trans-2-Pentene	0.44	1.02	6.95	29.76	1.54	2.05	4.26	0.31	0.31	4.48
cis-2-Pentene	0.25	0.51	3.54	15.77	0.82	1.09	2.22	0.16	0.17	2.26
2-Methyl-2-butene	0.83	1.87	13.14	55.88	3.08	3.98	8.67	0.62	0.62	8.20
2,2-Dimethylbutane	0.17	0.52	2.49	6.06	0.94	1.13	1.03	0.20	0.32	2.66
3-Methyl-1-pentene	0.06	0.21	0.40	1.49	0.16	0.18	0.27	0.17	0.60	0.42
Cyclopentane	0.44	1.09	7.21	25.13	2.35	1.41	2.54	0.39	0.35	4.87
2,3-Dimethylbutane	0.47	1.15	7.62	23.42	2.35	2.06	2.76	0.43	0.35	4.52
2-Methylpentane	2.75	6.16	40.87	106.54	12.09	9.96	13.58	2.35	2.09	24.57
3-Methylpentane	1.48	3.76	25.40	55.31	7.19	6.23	7.74	1.50	1.18	15.33
1-Hexene	0.16	0.43	1.79	5.16	0.62	0.63	0.86	0.18	0.17	1.97
Hexane	2.29	5.24	36.98	59.83	11.73	7.44	8.67	7.32	1.83	23.83
trans-2-Hexene	0.18	0.21	1.81	5.16	0.59	0.65	1.01	0.21	0.06	1.85
2-Methyl-2-pentene	0.27	0.41	2.59	8.26	0.78	1.01	1.59	0.24	0.15	2.51
trans-3-Methyl-2-pentene	0.17	0.29	1.69	5.18	0.48	0.69	0.99	0.13	0.10	1.78
cis-2-Hexene	0.10	0.04	1.15	3.39	0.34	0.35	0.13	0.08	0.05	0.29
cis-3-Methyl-2-pentene	0.19	0.38	1.97	6.15	0.62	0.82	1.23	0.15	0.16	2.40
Methylcyclopentane	2.04	2.98	33.88	42.46	5.45	3.60	5.49	1.73	1.03	12.05
2,4-Dimethylpentane	0.31	0.83	4.84	10.52	1.41	1.40	1.61	0.40	0.24	3.65
Benzene	3.93	7.32	26.01	36.15	11.47	8.85	9.19	3.66	3.03	41.10

Table B1:CONCENTRATIONS ($\mu g/m^3$) of VOC by SAMPLE - GVRD 1988

	STF	STF	STF	STF	STF	STF	STF	STF	SURRY	T17
	22-Oct-88 0600-0900	24-Oct-88 1800-2100	27-Oct-88 0600-0900	28-Oct-88 0600-0900	28-Oct-88 1800-2100	29-Oct-88 1800-2100	31-Oct-88 0600-0900	4-Nov-88	11-Dec-88 24.00	17-Dec-88 24.00
Cyclohexane	0.57	1.17	7.53	6.17	1.54	1.09	1.14	0.34	0.23	3.33
2-Methylhexane	0.76	1.74	8.46	10.51	2.67	2.49	2.48	0.73	0.51	8.53
2,3-Dimethylpentane	0.35	1.04	4.69	10.04	1.62	1.86	1.41	0.41	0.31	4.86
3-Methylhexane	1.43	2.42	10.44	12.59	3.85	3.57	3.79	1.25	1.09	11.72
trans-1,3-Dimethylcyclohexane	0.40	0.61	4.25	3.41	0.93	0.58	0.67	0.19	0.13	2.01
cis-1,3-Dimethylcyclohexane	0.51	0.92	5.23	5.34	1.53	1.06	1.24	0.39	0.57	4.01
2,2,4-Trimethylpentane	0.81	2.24	8.12	13.07	3.34	2.28	1.92	0.83	0.50	4.87
Heptane	1.00	1.92	8.88	7.74	3.43	2.03	1.87	0.72	0.52	8.94
trans-2-Heptene	0.10	0.17	0.69	1.36	0.24	0.33	0.39	0.09	0.12	0.99
cis-2-Heptene	0.10	0.14	1.19	2.47	0.18	0.55	0.67	0.11	0.12	1.58
Methylcyclohexane	1.18	1.71	8.39	5.74	2.79	0.86	0.92	0.41	0.75	5.44
2,5-Dimethylhexane	0.10	0.43	1.16	1.44	0.55	0.29	0.33	0.16	0.06	1.15
2,4-Dimethylhexane	0.28	0.77	2.78	3.22	1.19	0.66	0.77	0.29	0.17	2.66
2,3,4-Trimethylpentane	0.22	0.85	2.39	4.23	1.06	0.75	0.95	0.30	0.19	2.56
Toluene	6.55	15.22	47.00	56.15	26.04	18.38	15.97	6.94	5.27	114.62
2-Methylheptane	0.34	1.01	4.05	3.68	1.76	0.65	0.66	0.31	0.17	4.68
4-Methylheptane	0.07	0.53	1.87	1.94	0.81	0.18	0.16	0.07	0.00	2.65
3-Methylheptane	0.31	0.97	3.41	3.71	1.50	0.79	0.78	0.33	0.25	4.93
2,2,5-Trimethylhexane	0.54	0.53	1.11	0.96	0.62	0.80	0.72	0.45	0.45	1.39
Octane	0.60	0.99	4.60	3.27	1.74	0.66	0.74	0.37	0.46	4.00
Ethylbenzene	0.91	2.19	6.61	7.44	3.63	2.38	2.29	1.06	0.82	12.17
2,3-dimethylheptane	0.19	0.22	1.39	0.65	0.36	0.17	0.19	0.06	0.11	0.93
m-p-Xylene	3.41	8.12	24.86	28.29	12.64	7.77	8.63	4.19	2.72	43.41
4-Methyloctane	0.23	0.34	1.64	1.21	0.67	0.28	0.36	0.17	0.14	1.68
3-Methyloctane	0.00	0.07	0.28	0.17	0.08	0.62	0.60	0.42	0.29	0.22
Styrene	0.45	0.89	1.60	1.61	1.29	0.90	0.58	0.36	0.38	6.47
o-Xylene	1.19	2.97	8.79	9.92	4.61	2.74	3.23	1.49	0.96	14.63
Nonane	0.92	2.40	4.81	2.26	2.72	2.67	0.91	1.34	0.40	3.62
iso-Propylbenzene	0.06	0.30	0.70	0.71	0.42	0.30	0.27	0.12	0.04	1.11
n-Propylbenzene	0.24	0.69	2.44	1.94	0.78	1.00	0.74	0.32	0.24	3.04
4-Ethyltoluene	0.80	2.23	6.73	7.11	3.08	2.48	2.49	1.25	0.62	9.90
3-Ethyltoluene	0.47	1.29	4.51	4.03	2.03	1.30	1.44	0.68	0.46	6.81
1,3,5-Trimethylbenzene	0.40	1.32	4.17	4.43	1.57	1.50	1.64	0.73	0.43	6.09
2-Ethyltoluene	0.23	0.82	2.54	2.65	0.99	0.94	0.93	0.46	0.28	3.72
1,2,4-Trimethylbenzene	2.20	4.85	14.12	13.65	6.93	4.76	5.39	2.81	4.75	22.13
Decane	0.60	0.83	4.06	2.03	1.66	0.71	0.82	0.27	0.40	3.84
1,2,3-Trimethylbenzene	0.00	0.00	0.00	0.35	0.00	0.75	0.13	0.00	0.00	0.00

Table B1:CONCENTRATIONS ($\mu g/m^3$) of VOC by SAMPLE - GVRD 1988

	STF	STF	STF	STF	STF	STF	STF	STF	SURRY	T17
	22-Oct-88 0600-0900	24-Oct-88 1800-2100	27-Oct-88 0600-0900	28-Oct-88 0600-0900	28-Oct-88 1800-2100	29-Oct-88 1800-2100	31-Oct-88 0600-0900	4-Nov-88	11-Dec-88 24.00	17-Dec-88 24.00
p-Cymene	0.89	2.00	6.02	4.29	3.01	1.78	1.72	0.78	0.51	9.95
Indane	0.21	0.49	1.65	1.45	0.89	0.69	0.59	0.21	0.34	2.27
1,3-Diethylbenzene/n-Butylbenzen	0.47	1.19	3.72	3.33	1.87	1.35	1.39	0.59	0.19	5.20
1,4-Diethylbenzene	0.36	1.08	3.83	3.36	1.94	1.18	1.30	0.63	0.36	5.00
1,2-Diethylbenzene	0.18	0.21	1.15	0.54	0.52	0.57	0.29	0.11	0.32	1.06
Undecane	0.38	0.65	2.40	1.25	1.60	1.25	0.60	0.36	0.47	3.06
Dodecane	1.96	4.14	9.53	6.84	5.88	3.28	3.76	2.41	3.38	10.62
Trichlorofluoromethane	2.27	2.83	2.85	3.54	2.39	7.88	2.24	2.83	1.66	3.13
Dichloromethane	1.22	2.22	4.05	7.92	3.26	4.36	2.51	2.23	3.37	7.72
Chloroform	0.39	0.49	0.45	0.32	0.36	0.49	0.15	0.19	0.32	0.64
1,1,1-Trichloroethane	1.10	2.58	3.66	2.21	3.29	2.59	2.65	1.52	1.81	5.27
Carbontetrachloroide	0.85	0.83	0.75	0.94	0.78	1.40	0.80	0.89	0.70	0.54
Trichloroethylene	0.15	0.38	0.65	0.62	0.70	0.18	0.05	0.14	1.74	1.54
Tetrachloroethylene	2.54	2.33	5.70	2.41	3.71	0.90	0.41	0.46	0.67	5.91
1,4-Dichlorobenzene	0.57	1.03	1.26	1.88	0.00	2.37	0.00	0.40	0.88	0.70
SampleSite	STF	STF	STF	STF	STF	STF	STF	STF	SURRY	T17
SampleID#	BVAN82	BVAN84	BVAN93	BVAN100	BVAN110	BVAN111	BVAN109	BVAN121	BVAN142	BVAN145
Canister#	GVRD001	EPS9	MOE13	EPS12	MOE20	MOE18	EPS47	EPS41	GVRD004	EPS59
SampleDate	22-Oct-88	24-Oct-88	27-Oct-88	28-Oct-88	28-Oct-88	29-Oct-88	31-Oct-88	4-Nov-88	11-Dec-88	17-Dec-88
SampleTime	0600-0900	1800-2100	0600-0900	0600-0900	1800-2100	1800-2100	0600-0900	--	24.00	24.00

Table B1:CONCENTRATIONS ($\mu g/m^3$) of VOC by SAMPLE - GVRD 1988

	T18 13-Aug-88 0600-0900	T18 19-Aug-88 0600-0900	T18 25-Aug-88 0600-0900	T18 31-Aug-88 0600-0900	T18 12-Sep-88 0600-0900	T18 18-Sep-88 0600-0900	T18 24-Sep-88 0600-0900	T18 27-Sep-88 0600-0900	T18 30-Sep-88 0600-0900	T18 3-Oct-88 0600-0900
Propylene		1.45	1.08	1.90	2.43	0.85	1.93	1.69	4.48	1.64
Propane	1.83	4.40	3.34	6.88	9.94	5.03	7.95	3.74	12.31	4.74
1-Propyne	0.00	0.38	0.10	0.36	0.55	0.00	0.23	0.33	1.06	0.26
Isobutane	0.38	1.29	1.17	2.96	4.30	2.93	11.76	1.18	5.90	1.89
1-Butene/Isobutene	3.09	3.47	2.86	4.52	5.88	3.84	3.50	2.30	6.85	2.21
1,3-Butadiene	0.23	0.68	0.30	0.75	1.05	0.32	0.54	0.67	1.90	0.49
Butane	1.66	8.85	2.85	9.88	16.42	16.45	15.67	5.72	19.20	6.36
trans-2-Butene	0.21	0.77	0.28	1.16	2.25	1.81	1.70	0.48	2.85	0.36
2,2-Dimethylpropane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1-Butyne	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
cis-2-Butene	0.15	0.56	0.22	0.73	0.00	1.14	1.11	0.42	1.94	0.30
2-Methyl-1-butene	0.00	0.13	0.00	0.22	0.38	0.18	0.21	0.11	0.45	0.00
2-Methylbutane	2.47	8.58	12.15	15.24	28.83	11.49	15.24	5.69	26.47	5.45
1-Pentene	0.22	0.17	0.20	0.62	0.91	0.43	0.52	0.27	1.05	0.27
2-Methyl-1-butene	0.00	0.00	0.00	0.31	0.67	0.29	0.43	0.16	0.78	0.15
Pentane	4.33	6.49	3.53	11.72	19.87	8.37	9.25	4.92	19.80	5.06
Isoprene	0.23	0.32	0.17	1.15	0.73	0.19	0.28	0.36	1.24	0.23
trans-2-Pentene	0.24	0.66	0.60	0.84	1.51	0.79	1.04	0.56	2.15	0.41
cis-2-Pentene	0.09	0.31	0.12	0.40	0.77	0.38	0.45	0.25	1.11	0.17
2-Methyl-2-butene	0.52	1.31	0.64	1.57	2.74	1.54	1.70	0.98	4.04	0.75
2,2-Dimethylbutane	0.46	0.59	0.47	0.69	0.98	0.45	0.49	0.30	1.04	0.34
3-Methyl-1-pentene	0.00	0.00	0.00	0.13	0.14	0.00	0.00	0.51	0.22	0.44
Cyclopentane	0.28	0.56	0.28	0.95	1.68	0.60	0.71	0.42	1.69	0.44
2,3-Dimethylbutane	0.18	0.70	0.27	1.05	1.95	0.64	0.86	0.54	2.19	0.44
2-Methylpentane	2.27	4.75	2.76	6.15	10.20	3.89	4.69	3.20	10.99	2.87
3-Methylpentane	1.00	2.81	1.51	3.39	5.98	2.07	2.62	1.75	6.62	1.64
1-Hexene	0.21	0.38	0.22	0.49	0.50	0.27	0.38	0.24	0.83	0.25
Hexane	6.07	5.84	4.63	5.99	8.33	3.21	3.69	2.78	9.21	2.58
trans-2-Hexene	0.15	0.28	0.13	0.37	0.55	0.23	0.31	0.22	0.82	0.18
2-Methyl-2-pentene	0.20	0.35	0.13	0.44	0.71	0.29	0.38	0.31	1.12	0.20
trans-3-Methyl-2-pentene	0.00	0.27	0.14	0.26	0.48	0.16	0.26	0.21	0.75	0.17
cis-2-Hexene	0.00	0.13	0.00	0.17	0.36	0.12	0.21	0.10	0.11	0.11
cis-3-Methyl-2-pentene	0.00	0.30	0.10	0.35	0.57	0.22	0.34	0.25	0.96	0.17
Methylcyclopentane	1.78	2.26	1.67	2.80	4.75	1.55	1.88	1.20	4.29	1.15
2,4-Dimethylpentane	0.17	0.45	0.26	0.68	1.18	0.37	0.52	0.35	1.40	0.31
Benzene	1.62	4.58	2.31	13.66	11.86	3.80	4.20	4.04	11.63	3.68

Table B1:CONCENTRATIONS ($\mu g/m^3$) of VOC by SAMPLE - GVRD 1988

	T18 13-Aug-88 0600-0900	T18 19-Aug-88 0600-0900	T18 25-Aug-88 0600-0900	T18 31-Aug-88 0600-0900	T18 12-Sep-88 0600-0900	T18 18-Sep-88 0600-0900	T18 24-Sep-88 0600-0900	T18 27-Sep-88 0600-0900	T18 30-Sep-88 0600-0900	T18 3-Oct-88 0600-0900
Cyclohexane	0.15	0.41	0.34	0.63	1.08	0.28	0.43	0.28	0.97	0.28
2-Methylhexane	0.39	1.24	0.61	1.42	2.60	0.81	1.01	0.84	3.16	0.71
2,3-Dimethylpentane	0.20	0.65	0.33	0.74	1.43	0.44	0.57	0.41	1.56	0.36
3-Methylhexane	3.68	5.50	8.47	5.22	6.47	2.35	3.96	3.20	6.93	3.38
trans-1,3-Dimethylcyclohexane	0.00	0.44	0.13	0.37	0.73	0.26	0.30	0.18	0.77	0.15
cis-1,3-Dimethylcyclohexane	0.37	1.78	1.51	1.08	0.92	0.87	1.76	0.60	1.63	0.64
2,2,4-Trimethylpentane	0.94	1.95	1.02	1.93	3.07	1.17	1.34	1.13	3.39	1.03
Heptane	0.52	2.54	0.67	1.66	2.86	1.21	1.22	0.93	3.29	0.88
trans-2-Heptene	0.34	0.31	0.50	0.27	0.21	0.17	0.35	0.29	0.56	0.21
cis-2-Heptene	0.97	0.71	0.86	0.62	0.29	0.33	0.20	0.34	0.52	0.41
Methylcyclohexane	0.16	2.09	0.39	1.18	1.62	0.79	0.60	0.30	1.82	0.41
2,5-Dimethylhexane	0.19	0.40	0.22	0.42	0.49	0.21	0.24	0.16	0.56	0.13
2,4-Dimethylhexane	0.15	0.66	0.31	0.67	0.96	0.37	0.48	0.34	1.20	0.33
2,3,4-Trimethylpentane	0.11	0.42	0.22	0.61	1.04	0.29	0.45	0.35	1.57	0.24
Toluene	5.51	13.33	8.32	23.62	31.18	11.74	18.65	9.22	35.40	8.45
2-Methylheptane	0.26	0.94	0.40	1.00	1.48	0.58	0.30	0.37	1.75	0.21
4-Methylheptane	0.42	0.23	0.00	0.33	0.57	0.16	0.00	0.13	0.72	0.00
3-Methylheptane	0.16	0.59	0.34	0.81	1.42	0.38	0.43	0.35	1.77	0.32
2,2,5-Trimethylhexane	5.40	5.85	9.65	4.86	5.60	2.32	3.30	3.31	5.32	4.66
Octane	0.61	1.00	0.65	1.02	1.55	0.62	0.67	0.49	1.72	0.52
Ethylbenzene	0.90	4.17	1.21	2.08	3.33	1.71	2.98	1.37	4.77	1.40
2,3-dimethylheptane	0.35	0.39	0.49	0.42	0.54	0.19	0.31	0.20	0.47	0.23
m-p-Xylene	2.96	13.92	4.16	7.53	11.50	5.93	10.33	4.69	16.91	4.68
4-Methyloctane	0.17	0.38	0.15	0.47	0.58	0.21	0.33	0.21	0.78	0.19
3-Methyloctane	1.23	1.80	0.00	1.48	0.11	0.66	1.19	1.12	0.11	1.17
Styrene	0.88	0.87	0.00	2.49	2.17	0.60	1.64	0.74	3.57	0.87
o-Xylene	1.11	4.31	1.49	2.81	4.08	1.97	3.34	1.74	6.16	1.75
Nonane			0.91	3.75	7.37	2.58		2.46	4.21	4.98
iso-Propylbenzene	0.50	0.30	0.13	0.37	0.51	0.29	0.25	0.26	0.64	0.22
n-Propylbenzene	0.38	0.52	0.59	1.22	3.06	0.55	0.26	0.51	1.93	0.99
4-Ethyltoluene	2.07	1.93	1.28	2.77	3.70	1.52	1.43	1.47	4.66	2.27
3-Ethyltoluene	0.64	2.01	1.36	1.87	2.33	1.02	0.81	1.54	4.69	1.14
1,3,5-Trimethylbenzene	0.43	0.84	0.51	0.28	0.00	0.00	0.00	0.98	3.08	0.00
2-Ethyltoluene	1.25	0.75	0.51	2.08	2.49	0.98	1.39	0.59	2.01	1.72
1,2,4-Trimethylbenzene	4.45	5.71	5.16	7.40	8.93	4.60	4.78	4.01	10.76	4.61
Decane	2.78	2.61	2.15	2.87	2.81	1.32	1.18	0.99	3.20	1.60
1,2,3-Trimethylbenzene	4.69	3.00	2.34	3.08	4.51	1.90	2.01	1.96	5.09	3.38

Table B1:CONCENTRATIONS ($\mu g/m^3$) of VOC by SAMPLE - GVRD 1988

	T18	T18	T18	T18	T18	T18	T18	T18	T18	T18
	13-Aug-88 0600-0900	19-Aug-88 0600-0900	25-Aug-88 0600-0900	31-Aug-88 0600-0900	12-Sep-88 0600-0900	18-Sep-88 0600-0900	24-Sep-88 0600-0900	27-Sep-88 0600-0900	30-Sep-88 0600-0900	3-Oct-88 0600-0900
p-Cymene	6.12	4.86	4.20	4.24	4.53	2.47	2.42	2.13	5.51	3.12
Indane	2.77	2.16	1.42	1.35	1.47	0.79	0.73	0.60	1.54	0.78
1,3-Diethylbenzene/n-Butylbenzen	5.61	3.98	2.91	2.42	2.90	1.44	1.44	1.18	3.35	1.54
1,4-Diethylbenzene	2.64	2.50	2.26	2.43	3.04	1.55	1.47	1.03	3.40	1.66
1,2-Diethylbenzene	4.03	3.00	1.69	1.36	1.41	0.72	0.58	0.50	1.19	0.72
Undecane	6.96	4.84	4.65	3.51	4.01	2.10	1.83	1.01	3.83	2.71
Dodecane	11.39	12.39	11.76	7.02	11.89	4.62	4.06	4.31	10.05	5.64
Trichlorofluoromethane	4.32	3.29	2.45	2.95	3.32	2.29	2.45	2.13	3.27	2.83
Dichloromethane	3.51	7.98	4.84	3.88	4.50	2.54	2.83	2.49	5.21	1.99
Chloroform	1.12	0.49	0.40	0.39	0.55	0.27	0.32	0.38	0.84	0.36
1,1,1-Trichloroethane	3.39	2.79	2.02	3.08	2.84	1.73	2.21	1.39	3.55	2.33
Carbontetrachloroide	1.14	0.82	0.46	0.92	0.82	0.74	0.75	0.67	0.84	0.81
Trichloroethylene	0.67	3.28	3.08	1.28	2.85	1.59	3.85	0.80	0.96	1.10
Tetrachloroethylene	2.75	0.83	0.51	2.72	2.16	0.86	1.22	6.73	10.49	0.68
1,4-Dichlorobenzene	3.43	1.44	2.76	1.19	0.91	1.20	0.35	8.92	1.13	0.38
SampleSite	T18	T18	T18	T18	T18	T18	T18	T18	T18	T18
SampleID#	BVAN26	BVAN3	BVAN8	BVAN30	BVAN50	BVAN33	BVAN46	BVAN47	BVAN56	BVAN55
Canister#	EPS15	GVRD008	EPS62	GVRD003	MOE18	EPS63	EPS55	EPS56	MOE8	EPS44
SampleDate	13-Aug-88	19-Aug-88	25-Aug-88	31-Aug-88	12-Sep-88	18-Sep-88	24-Sep-88	27-Sep-88	30-Sep-88	3-Oct-88
SampleTime	0600-0900	0600-0900	0600-0900	0600-0900	0600-0900	0600-0900	0600-0900	0600-0900	0600-0900	0600-0900

Table B1:CONCENTRATIONS ($\mu g/m^3$) of VOC by SAMPLE - GVRD 1988

	T2	T2	T2	T2	T2	T2	T2	T2	T4	T9
	7-Aug-88 0600-0900	13-Aug-88 0600-0900	19-Aug-88 0600-0900	12-Sep-88 0600-0900	18-Sep-88 0600-0900	24-Sep-88 0600-0900	27-Sep-88 0600-0900	30-Sep-88 0600-0900	5-Dec-88 24.00	29-Nov-88 24.00
Propylene	0.60	0.76	1.27	1.42	1.84	2.04	0.95	0.93	4.80	3.78
Propane	1.89	2.14	4.65	3.84	4.80	5.72	1.37	1.57	15.34	8.69
1-Propyne	0.09	0.00	0.33	0.28	0.39	0.50	0.15	0.00	0.62	0.50
Isobutane	1.11	0.61	1.35	1.89	4.32	5.33	0.83	1.45	44.11	10.70
1-Butene/Isobutene	0.14	1.64	1.13	2.93	3.06	2.78	1.41	1.44	9.43	0.95
1,3-Butadiene	0.13	0.32	0.59	0.50	0.76	1.01	0.33	0.32	1.35	0.93
Butane	5.38	5.30	11.41	6.99	9.20	14.56	2.60	4.95	133.24	18.12
trans-2-Butene	0.25	0.23	0.92	0.98	1.23	2.69	0.25	0.37	7.75	1.42
2,2-Dimethylpropane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1-Butyne	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00
cis-2-Butene	0.20	0.18	0.00	0.64	0.89	1.80	0.17	0.30	4.81	1.11
2-Methyl-1-butene	0.00	0.00	0.18	0.16	0.20	0.35	0.00	0.00	1.03	0.23
2-Methylbutane	6.32	6.38	9.79	10.90	13.94	20.37	2.89	4.46	126.80	13.67
1-Pentene	0.21	0.12	0.40	0.41	0.46	0.81	0.26	0.18	2.29	0.47
2-Methyl-1-butene	0.12	0.00	0.19	0.26	0.35	0.56	0.08	0.11	1.92	0.34
Pentane	4.37	3.33	7.53	8.19	9.02	12.60	2.22	3.24	62.80	10.28
Isoprene	0.19	0.28	0.47	0.44	0.44	0.50	0.20	0.27	1.15	0.59
trans-2-Pentene	0.30	0.28	0.75	0.73	0.92	1.47	0.26	0.51	5.26	0.92
cis-2-Pentene	0.10	0.11	0.40	0.36	0.44	0.75	0.10	0.16	2.68	0.48
2-Methyl-2-butene	0.36	0.46	1.42	1.29	1.60	2.69	0.43	0.62	9.98	1.83
2,2-Dimethylbutane	0.38	0.39	0.54	0.52	0.53	0.67	0.14	0.18	2.41	0.64
3-Methyl-1-pentene	0.00	0.00	0.00	0.00	0.14	0.13	0.00	0.41	0.42	0.16
Cyclopentane	0.33	0.27	0.64	0.66	0.77	1.01	0.20	0.26	6.09	0.98
2,3-Dimethylbutane	0.41	0.32	0.85	0.83	1.03	1.35	0.26	0.36	6.35	1.06
2-Methylpentane	2.95	2.75	4.56	4.45	5.35	6.74	1.92	2.07	33.62	5.92
3-Methylpentane	1.53	0.17	2.65	2.82	3.11	4.05	0.91	1.14	18.74	3.59
1-Hexene	0.19	0.17	0.27	0.33	0.37	0.50	0.16	0.13	1.44	0.41
Hexane	4.47	3.43	5.77	4.30	4.35	5.71	1.51	2.01	21.29	5.24
trans-2-Hexene	0.12	0.00	0.33	0.31	0.32	0.48	0.13	0.16	1.46	0.39
2-Methyl-2-pentene	0.10	0.10	0.43	0.37	0.43	0.64	0.16	0.21	2.33	0.57
trans-3-Methyl-2-pentene	0.00	0.00	0.26	0.23	0.31	0.43	0.12	0.12	1.52	0.37
cis-2-Hexene	0.00	0.00	0.15	0.19	0.21	0.32	0.00	0.00	0.20	0.18
cis-3-Methyl-2-pentene	0.09	0.13	0.34	0.35	0.34	0.50	0.13	0.15	1.77	0.44
Methylcyclopentane	2.20	1.53	2.82	2.10	2.41	2.93	0.71	0.83	16.25	2.85
2,4-Dimethylpentane	0.28	0.21	0.54	0.48	0.67	0.88	0.18	0.21	3.28	0.71
Benzene	2.44	2.54	4.16	4.75	5.49	6.88	2.25	2.78	17.94	7.10

Table B1:CONCENTRATIONS ($\mu g/m^3$) of VOC by SAMPLE - GVRD 1988

	T2	T2	T2	T2	T2	T2	T2	T2	T4	T9
	7-Aug-88 0600-0900	13-Aug-88 0600-0900	19-Aug-88 0600-0900	12-Sep-88 0600-0900	18-Sep-88 0600-0900	24-Sep-88 0600-0900	27-Sep-88 0600-0900	30-Sep-88 0600-0900	5-Dec-88 24.00	29-Nov-88 24.00
Cyclohexane	0.24	0.23	0.43	0.40	0.49	0.56	0.13	0.20	3.07	0.95
2-Methylhexane	0.58	0.56	1.23	1.14	1.42	1.70	0.48	0.53	7.80	1.93
2,3-Dimethylpentane	0.36	0.30	0.60	0.58	0.82	1.01	0.18	0.23	4.64	1.07
3-Methylhexane	3.04	3.12	3.64	3.29	3.16	2.79	1.54	1.47	11.49	3.12
trans-1,3-Dimethylcyclohexane	0.17	0.14	0.36	0.24	0.35	0.46	0.00	0.10	2.07	0.41
cis-1,3-Dimethylcyclohexane	0.63	0.38	1.13	0.38	0.69	0.95	0.00	0.21	3.47	0.24
2,2,4-Trimethylpentane	0.82	0.65	1.50	1.57	1.76	2.21	1.04	0.74	4.66	0.80
Heptane	0.44	0.57	1.62	1.02	1.40	1.79	0.31	0.43	8.58	2.28
trans-2-Heptene	0.51	0.32	0.29	0.19	0.33	0.36	0.28	0.14	0.87	0.24
cis-2-Heptene	0.28	0.28	0.09	0.10	0.23	0.19	0.00	0.00	1.28	0.45
Methylcyclohexane	0.30	0.44	1.55	0.55	0.85	1.08	0.22	0.22	5.13	2.03
2,5-Dimethylhexane	0.20	0.12	0.28	0.37	0.30	0.36	0.00	0.26	0.91	0.27
2,4-Dimethylhexane	0.23	0.20	0.60	0.47	0.55	0.66	0.00	0.29	2.22	0.69
2,3,4-Trimethylpentane	0.25	0.18	0.54	0.48	0.65	0.85	0.15	0.24	1.58	0.55
Toluene	5.76	5.25	22.89	9.58	11.56	15.92	4.00	4.66	35.07	18.16
2-Methylheptane	0.37	0.28	0.99	0.41	0.55	0.84	0.26	0.20	3.62	1.28
4-Methylheptane	0.00	0.00	0.29	0.00	0.14	0.26	0.00	0.00	2.01	0.49
3-Methylheptane	0.00	0.36	0.82	0.48	0.63	1.53	0.20	0.22	3.89	1.17
2,2,5-Trimethylhexane	2.28	2.08	2.44	2.20	1.12	1.75	0.86	0.69	1.53	0.78
Octane	0.27	0.29	1.02	0.51	0.67	1.98	0.14	0.25	3.85	1.30
Ethylbenzene	0.61	0.67	2.32	1.37	2.06	2.20	0.54	1.71	5.32	2.73
2,3-dimethylheptane	0.22	0.28	0.55	0.38	0.28	0.23	0.12	0.12	0.91	0.35
m-p-Xylene	2.09	2.46	8.03	4.98	7.16	8.06	2.15	6.04	18.07	9.72
4-Methyloctane	0.15	0.19	0.71	0.33	0.38	0.41	0.13	0.22	1.08	0.55
3-Methyloctane	0.00	0.00	1.39	0.00	0.08	0.07	0.00	0.00	0.14	0.00
Styrene	0.00	0.00	0.24	0.00	0.43	0.66	0.00	0.00	3.91	4.11
o-Xylene	0.69	0.79	2.59	1.72	2.37	2.77	0.57	1.93	6.13	3.44
Nonane				2.53	3.18	2.35	0.00	1.45	3.00	1.88
iso-Propylbenzene	0.12	0.66	1.08	0.56	0.16	0.23	0.26	0.09	0.74	0.30
n-Propylbenzene	0.00	0.53	1.85	0.95	0.80	0.69	0.00	0.53	1.52	1.04
4-Ethyltoluene	1.68	0.76	3.63	1.61	1.74	2.12	1.17	0.82	4.18	2.69
3-Ethyltoluene	0.91	0.51	1.78	1.07	1.08	1.27	0.95	0.57	2.93	1.78
1,3,5-Trimethylbenzene	0.41	0.42	3.67	1.09	1.20	1.38	0.45	0.50	2.81	1.83
2-Ethyltoluene	0.86	0.09	1.56	0.64	0.65	0.77	1.06	0.30	1.58	1.11
1,2,4-Trimethylbenzene	2.37	2.36	12.29	4.57	4.17	4.76	2.29	2.06	11.57	9.86
Decane	0.47	0.41	1.43	1.26	0.92	0.99	0.22	0.35	3.04	1.78
1,2,3-Trimethylbenzene	0.12	0.33	0.00	0.40	0.00	0.00	0.00	0.15	0.00	0.00

Table B1:CONCENTRATIONS ($\mu g/m^3$) of VOC by SAMPLE - GVRD 1988

	T2	T2	T2	T2	T2	T2	T2	T2	T4	T9
	7-Aug-88 0600-0900	13-Aug-88 0600-0900	19-Aug-88 0600-0900	12-Sep-88 0600-0900	18-Sep-88 0600-0900	24-Sep-88 0600-0900	27-Sep-88 0600-0900	30-Sep-88 0600-0900	5-Dec-88 24.00	29-Nov-88 24.00
p-Cymene	1.53	0.00	1.90	1.45	1.61	2.08	0.66	0.75	4.54	3.39
Indane	0.46	0.44	4.12	0.61	0.57	0.56	0.21	0.21	1.37	0.91
1,3-Diethylbenzene/n-Butylbenzen	0.49	0.73	7.29	1.22	1.26	1.31	0.41	0.59	2.61	1.68
1,4-Diethylbenzene	0.39	0.44	2.35	0.92	0.90	1.10	0.29	0.35	2.64	1.74
1,2-Diethylbenzene	0.38	0.47	2.87	0.46	0.33	0.35	0.14	0.32	1.28	0.65
Undecane	1.01	0.75	2.13	0.86	0.53	0.74	0.31	0.48	2.70	1.12
Dodecane	2.80	3.33	5.40	2.94	2.98	2.61	2.05	2.01	6.34	10.24
Trichlorofluoromethane	3.81	4.95	5.20	3.39	2.85	2.68	1.97	1.72	1.89	5.67
Dichloromethane	1.47	2.38	2.76	2.30	1.69	2.29	0.00	1.41	4.78	6.82
Chloroform	1.30	0.30	0.63	0.92	0.32	0.39	0.37	0.70	1.17	0.47
1,1,1-Trichloroethane	1.41	1.36	2.38	2.39	1.65	2.20	1.17	1.60	2.63	4.20
Carbontetrachloroide	1.00	0.71	1.75	0.87	0.88	1.17	1.07	0.85	0.69	0.87
Trichloroethylene	1.10	0.51	1.63	0.70	0.53	1.27	0.86	0.28	0.71	1.86
Tetrachloroethylene	0.52	0.28	4.16	5.50	0.84	5.89	0.80	3.03	4.32	2.35
1,4-Dichlorobenzene	1.31	0.53	2.24	0.50	0.00	0.99	2.30	0.59	0.68	1.56
SampleSite	T2	T2	T2	T2	T2	T2	T2	T2	T4	T9
SampleID#	BVAN17	BVAN1	BVAN6	BVAN49	BVAN44	BVAN53	BVAN51	BVAN52	BVAN139	BVAN138
Canister#	EPS17	GVRD002	GVRD001	MOR17	EPS53	EPS3	EPS13	MOE10	EPS62	MOE10
SampleDate	7-Aug-88	13-Aug-88	19-Aug-88	12-Sep-88	18-Sep-88	24-Sep-88	27-Sep-88	30-Sep-88	5-Dec-88	29-Nov-88
SampleTime	0600-0900	0600-0900	0600-0900	0600-0900	0600-0900	0600-0900	0600-0900	0600-0900	24.00	24.00

Table B1:CONCENTRATIONS ($\mu g/m^3$) of VOC by SAMPLE - GVRD 1988

	T9	T9	T9	T9	TMPL	TMPL	TMPL	TMPL	TMPL	TMPL
	5-Dec-88 24.00	11-Dec-88 24.00	17-Dec-88 24.00	23-Dec-88 24.00	20-Oct-88 1800-2100	22-Oct-88 0600-0900	24-Oct-88 0600-0900	27-Oct-88 0600-0900	28-Oct-88 0600-0900	28-Oct-88 1800-2100
Propylene	4.06	2.66	9.80	2.34	2.52	0.46	3.35	1.37	2.57	3.18
Propane	11.13	7.26	32.65	7.69	7.77	2.21	10.12	4.49	7.05	12.19
1-Propyne	0.59	0.38	1.76	0.37	0.60	0.04	0.41	0.00	0.92	0.00
Isobutane	20.42	12.81	24.39	6.15	7.26	1.77	7.94	3.60	3.30	10.37
1-Butene/Isobutene	8.17	4.36	6.87	2.43	3.67	0.64	3.13	1.43	2.21	1.93
1,3-Butadiene	1.33	0.83	2.76	0.72	1.10	0.08	0.77	0.46	1.31	1.09
Butane	34.71	23.10	76.97	13.74	19.90	6.55	24.53	11.31	23.20	34.50
trans-2-Butene	3.80	1.94	5.74	0.68	2.00	0.09	1.00	0.35	1.24	1.27
2,2-Dimethylpropane	0.00	0.00	0.00	0.00	0.00	0.03	0.14	0.00	0.00	0.17
1-Butyne	0.03	0.00	0.00	0.02	0.03	0.00	0.00	0.00	0.00	0.00
cis-2-Butene	2.53	1.24	3.53	0.50	1.19	0.07	0.68	0.25	0.83	0.92
2-Methyl-1-butene	0.48	0.21	0.73	0.12	0.27	0.03	0.18	0.00	0.23	0.29
2-Methylbutane	28.02	15.79	57.68	8.70	28.22	4.07	15.12	9.97	17.42	24.70
1-Pentene	0.97	0.50	1.60	0.31	0.61	0.11	0.44	0.20	0.51	0.61
2-Methyl-1-butene	1.06	0.44	1.29	0.27	0.41	0.03	0.26	0.12	0.31	0.35
Pentane	19.87	12.53	47.24	7.33	24.65	3.61	17.99	8.34	13.31	18.30
Isoprene	0.76	0.41	1.98	0.38	0.61	0.05	0.37	0.21	0.93	0.64
trans-2-Pentene	1.90	1.02	3.45	0.57	1.19	0.09	0.70	0.34	0.86	0.87
cis-2-Pentene	1.00	0.50	1.75	0.28	0.58	0.04	0.37	0.17	0.44	0.46
2-Methyl-2-butene	3.24	1.92	6.53	1.06	2.29	0.17	1.29	0.68	1.76	1.71
2,2-Dimethylbutane	0.88	0.65	2.51	0.54	0.86	0.11	0.40	0.34	0.60	0.73
3-Methyl-1-pentene	0.24	0.15	0.36	0.08	0.09	0.30	0.13	0.12	0.11	0.16
Cyclopentane	1.81	1.15	4.77	0.73	2.15	0.22	1.00	0.66	1.13	1.51
2,3-Dimethylbutane	1.94	0.99	4.24	0.68	1.87	0.15	1.03	0.59	1.13	1.60
2-Methylpentane	10.35	6.61	23.75	4.09	10.79	1.23	5.39	3.73	6.32	8.44
3-Methylpentane	5.98	3.56	14.98	2.61	6.44	0.57	3.15	2.31	3.70	5.13
1-Hexene	0.75	0.43	1.47	0.33	0.48	0.09	0.30	0.18	0.46	0.46
Hexane	8.57	5.73	23.10	4.27	13.89	1.43	5.16	4.21	6.16	7.82
trans-2-Hexene	0.69	0.38	1.45	0.28	0.49	0.00	0.33	0.16	0.36	0.39
2-Methyl-2-pentene	0.91	0.50	2.06	0.36	0.65	0.05	0.42	0.21	0.52	0.50
trans-3-Methyl-2-pentene	0.60	0.35	1.43	0.24	0.40	0.03	0.27	0.16	0.37	0.30
cis-2-Hexene	0.06	0.06	0.22	0.04	0.30	0.00	0.14	0.00	0.17	0.24
cis-3-Methyl-2-pentene	0.76	0.42	1.72	0.29	0.50	0.02	0.33	0.15	0.41	0.38
Methylcyclopentane	4.76	3.13	11.43	2.06	6.28	0.58	2.65	1.83	2.94	3.93
2,4-Dimethylpentane	1.30	0.71	2.83	0.50	1.34	0.11	0.75	0.39	0.85	1.03
Benzene	9.11	5.85	28.66	5.45	9.90	1.43	5.69	3.54	8.53	9.14

Table B1:CONCENTRATIONS ($\mu g/m^3$) of VOC by SAMPLE - GVRD 1988

	T9	T9	T9	T9	TMPL	TMPL	TMPL	TMPL	TMPL	TMPL
	5-Dec-88 24.00	11-Dec-88 24.00	17-Dec-88 24.00	23-Dec-88 24.00	20-Oct-88 1800-2100	22-Oct-88 0600-0900	24-Oct-88 0600-0900	27-Oct-88 0600-0900	28-Oct-88 0600-0900	28-Oct-88 1800-2100
Cyclohexane	1.45	0.96	3.34	0.48	3.17	0.26	0.97	0.68	0.93	1.11
2-Methylhexane	2.80	1.72	8.01	1.37	3.48	0.23	1.50	0.97	1.74	2.16
2,3-Dimethylpentane	2.05	1.01	3.76	0.70	1.66	0.12	0.86	0.46	0.91	1.30
3-Methylhexane	4.44	3.01	10.72	2.56	4.97	1.09	2.66	1.64	2.83	3.26
trans-1,3-Dimethylcyclohexane	0.89	0.61	2.15	0.35	1.44	0.08	0.51	0.34	0.58	0.73
cis-1,3-Dimethylcyclohexane	1.82	1.02	4.18	0.70	1.89	0.00	0.84	0.47	0.95	1.21
2,2,4-Trimethylpentane	3.07	1.51	4.13	0.88	3.52	0.50	2.13	1.03	1.85	2.68
Heptane	3.35	2.47	9.78	1.66	7.70	0.29	1.78	1.42	2.25	2.64
trans-2-Heptene	0.44	0.23	0.83	0.18	0.21	0.06	0.15	0.00	0.21	0.15
cis-2-Heptene	0.54	0.40	0.61	0.40	0.24	0.12	0.16	0.00	0.15	0.25
Methylcyclohexane	2.83	1.98	7.08	0.95	6.14	0.19	1.45	1.37	1.77	2.13
2,5-Dimethylhexane	0.45	0.23	1.01	0.22	0.62	0.07	0.30	0.22	0.30	0.46
2,4-Dimethylhexane	1.19	0.65	2.54	0.45	1.43	0.09	0.66	0.38	0.68	0.97
2,3,4-Trimethylpentane	1.02	0.42	1.73	0.30	0.80	0.03	0.68	0.26	0.70	0.76
Toluene	22.47	21.35	127.41	17.04	23.37	2.75	12.57	7.07	15.91	21.14
2-Methylheptane	1.91	1.01	5.09	0.72	3.11	0.08	0.88	0.54	1.14	1.37
4-Methylheptane	0.73	0.23	2.63	0.23	1.17	0.00	0.44	0.11	0.55	0.60
3-Methylheptane	1.72	0.85	4.81	0.63	1.97	0.09	0.77	0.47	1.05	1.19
2,2,5-Trimethylhexane	1.21	0.98	1.35	1.71	1.02	0.70	0.72	0.60	0.58	0.66
Octane	1.97	1.43	4.68	0.73	4.15	0.21	0.88	0.72	1.25	1.31
Ethylbenzene	3.32	2.24	11.18	2.21	3.64	0.43	2.06	1.25	2.61	3.28
2,3-dimethylheptane	0.49	0.42	1.12	0.32	0.61	0.11	0.22	0.19	0.28	0.32
m-p-Xylene	12.36	8.23	39.77	8.15	13.96	1.67	7.52	4.89	9.73	11.45
4-Methyloctane	0.79	0.56	1.92	0.44	1.00	0.07	0.36	0.25	0.50	0.57
3-Methyloctane	0.10	0.09	0.24	0.05	0.13	0.00	0.32	0.39	0.00	0.00
Styrene	3.86	2.02	7.88	0.89	1.40	0.00	0.62	0.39	0.93	1.13
o-Xylene	4.52	2.90	13.58	2.98	4.65	0.54	2.68	1.75	3.50	3.97
Nonane	11.60	7.82	5.73	4.30	5.36	1.30	1.32	2.10	1.78	1.91
iso-Propylbenzene	0.64	0.30	1.31	0.33	0.62	0.15	0.29	0.22	0.26	0.40
n-Propylbenzene	0.37	0.75	3.03	1.05	1.21	0.24	0.68	0.70	0.83	1.10
4-Ethyltoluene	2.80	2.37	9.15	2.27	3.61	0.60	2.36	1.77	2.89	3.29
3-Ethyltoluene	1.87	1.69	6.45	1.58	2.72	0.50	1.79	1.26	1.94	2.46
1,3,5-Trimethylbenzene	1.60	1.38	5.79	1.43	2.60	0.36	1.55	1.25	1.93	2.10
2-Ethyltoluene	0.98	0.83	3.67	0.88	1.40	0.21	0.96	0.71	1.05	1.34
1,2,4-Trimethylbenzene	7.94	7.86	21.45	7.09	8.24	1.61	5.63	4.39	6.58	7.28
Decane	2.63	2.08	6.28	1.73	3.73	0.85	2.65	2.16	2.73	3.37
1,2,3-Trimethylbenzene	0.00	0.78	0.00	0.00	0.00	0.86	0.00	0.00	0.19	0.00

Table B1:CONCENTRATIONS ($\mu g/m^3$) of VOC by SAMPLE - GVRD 1988

	T9	T9	T9	T9	TMPL	TMPL	TMPL	TMPL	TMPL	TMPL
	5-Dec-88 24.00	11-Dec-88 24.00	17-Dec-88 24.00	23-Dec-88 24.00	20-Oct-88 1800-2100	22-Oct-88 0600-0900	24-Oct-88 0600-0900	27-Oct-88 0600-0900	28-Oct-88 0600-0900	28-Oct-88 1800-2100
p-Cymene	4.67	2.67	9.69	2.74	4.78	1.13	4.22	2.55	3.47	4.39
Indane	1.12	0.77	2.41	0.69	1.02	0.16	0.73	0.52	0.72	1.00
1,3-Diethylbenzene/n-Butylbenzen	2.46	1.52	5.26	1.54	2.12	0.36	1.50	1.23	1.93	2.22
1,4-Diethylbenzene	2.22	1.61	5.48	1.67	2.28	0.38	1.79	1.39	2.07	2.71
1,2-Diethylbenzene	0.89	0.74	1.83	0.74	0.89	0.12	0.68	0.52	0.62	0.89
Undecane	2.67	1.98	4.59	1.76	2.83	0.71	2.27	1.63	2.77	3.98
Dodecane	8.26	7.86	15.30	6.61	7.96	2.28	4.91	3.90	8.92	9.68
Trichlorofluoromethane	4.93	5.16	5.32	4.84	2.23	1.56	2.08	1.56	1.60	1.77
Dichloromethane	6.82	5.78	6.92	4.75	2.58	0.00	2.73	0.94	1.98	2.47
Chloroform	0.36	0.44	0.38	0.38	0.56	0.47	0.53	0.28	0.26	0.36
1,1,1-Trichloroethane	2.45	2.74	20.15	2.62	2.87	1.06	2.34	1.39	1.66	2.62
Carbontetrachloroide	0.82	0.79	0.76	0.79	0.97	0.83	1.97	0.78	0.87	0.68
Trichloroethylene	1.97	0.83	2.67	0.53	0.52	0.53	0.76	0.05	0.34	0.71
Tetrachloroethylene	1.89	1.01	5.61	1.61	1.58	0.18	2.55	0.36	0.70	3.68
1,4-Dichlorobenzene	0.85	0.82	0.67	0.58	1.42	2.68	5.81	0.00	0.00	0.00
SampleSite	T9	T9	T9	T9	TMPL	TMPL	TMPL	TMPL	TMPL	TMPL
SampleID#	BVAN144	BVAN141	BVAN147	BVAN146	BVAN78	BVAN83	BVAN136	BVAN94	BVAN101	BVAN117
Canister#	EPS17	EPS2	MOE1	GVRD010	MOE5	EPS4	MOE12	GVRD007	EPS14	MOE15
SampleDate	5-Dec-88	11-Dec-88	17-Dec-88	23-Dec-88	20-Oct-88	22-Oct-88	24-Oct-88	27-Oct-88	28-Oct-88	28-Oct-88
SampleTime	24.00	24.00	24.00	24.00	1800-2100	0600-0900	0600-0900	0600-0900	0600-0900	1800-2100

Table B1:CONCENTRATIONS ($\mu g/m^3$) of VOC by SAMPLE - GVRD 1988

	TMPL. 29-Oct-88 1800-2100	TMPL. 31-Oct-88 0600-0900	TMPL. 4-Nov-88 0600-0900
Propylene	0.65	1.70	0.50
Propane	7.83	4.36	9.15
1-Propyne	0.11	0.34	0.08
Isobutane	8.33	17.56	9.02
1-Butene/Isobutene	1.01	4.94	0.90
1,3-Butadiene	0.18	0.86	0.15
Butane	49.22	43.88	106.71
trans-2-Butene	0.35	4.01	0.25
2,2-Dimethylpropane	0.50	0.00	0.00
1-Butyne	0.00	0.00	0.00
cis-2-Butene	0.19	2.44	0.10
2-Methyl-1-butene	0.00	0.43	0.04
2-Methylbutane	32.67	30.65	78.37
1-Pentene	0.11	0.81	0.11
2-Methyl-1-butene	0.00	0.71	0.05
Pentane	33.64	18.83	74.76
Isoprene	0.14	0.52	0.46
trans-2-Pentene	0.17	1.83	0.31
cis-2-Pentene	0.08	0.96	0.05
2-Methyl-2-butene	0.35	3.54	0.20
2,2-Dimethylbutane	0.76	0.61	1.89
3-Methyl-1-pentene	0.15	0.16	0.00
Cyclopentane	2.12	1.40	4.06
2,3-Dimethylbutane	1.13	1.42	2.22
2-Methylpentane	7.66	7.44	13.81
3-Methylpentane	4.01	4.24	6.95
1-Hexene	0.00	0.51	0.11
Hexane	10.24	5.47	16.59
trans-2-Hexene	0.13	0.47	0.00
2-Methyl-2-pentene	0.13	0.74	0.04
trans-3-Methyl-2-pentene	0.00	0.48	0.02
cis-2-Hexene	0.00	0.24	0.00
cis-3-Methyl-2-pentene	0.00	0.57	0.02
Methylcyclopentane	3.96	3.10	5.87
2,4-Dimethylpentane	0.43	0.79	0.60
Benzene	3.41	5.43	3.98

Table B1:CONCENTRATIONS ($\mu g/m^3$) of VOC by SAMPLE - GVRD 1988

	TMPL 29-Oct-88 1800-2100	TMPL 31-Oct-88 0600-0900	TMPL 4-Nov-88 0600-0900
Cyclohexane	2.29	0.91	3.01
2-Methylhexane	1.59	1.56	1.87
2,3-Dimethylpentane	0.61	0.90	0.74
3-Methylhexane	2.40	2.44	3.23
trans-1,3-Dimethylcyclohexane	0.70	0.48	0.76
cis-1,3-Dimethylcyclohexane	0.81	0.79	0.81
2,2,4-Trimethylpentane	1.43	1.53	1.29
Heptane	3.47	1.85	3.45
trans-2-Heptene	0.00	0.24	0.07
cis-2-Heptene	0.00	0.17	0.18
Methylcyclohexane	3.15	1.30	3.18
2,5-Dimethylhexane	0.20	0.20	0.22
2,4-Dimethylhexane	0.53	0.50	0.49
2,3,4-Trimethylpentane	0.12	0.50	0.10
Toluene	4.93	9.46	4.96
2-Methylheptane	0.63	0.61	0.77
4-Methylheptane	0.00	0.14	0.26
3-Methylheptane	0.49	0.57	0.41
2,2,5-Trimethylhexane	0.68	0.64	1.24
Octane	1.41	0.96	0.78
Ethylbenzene	0.73	1.58	0.54
2,3-dimethylheptane	0.15	0.24	0.13
m-p-Xylene	2.88	5.98	2.11
4-Methyloctane	0.31	0.40	0.13
3-Methyloctane	0.00	0.44	0.00
Styrene	0.00	0.48	0.00
o-Xylene	0.85	2.20	0.62
Nonane	2.30	2.86	0.00
iso-Propylbenzene	0.10	0.23	0.12
n-Propylbenzene	0.34	0.66	0.16
4-Ethyltoluene	0.87	1.83	0.49
3-Ethyltoluene	0.82	1.52	0.38
1,3,5-Trimethylbenzene	0.66	1.30	0.21
2-Ethyltoluene	0.32	0.66	0.17
1,2,4-Trimethylbenzene	1.86	4.54	1.39
Decane	1.43	2.31	0.61
1,2,3-Trimethylbenzene	0.00	0.00	0.23

Table B1:CONCENTRATIONS ($\mu g/m^3$) of VOC by SAMPLE - GVRD 1988

	TMPL	TMPL	TMPL
	29-Oct-88 1800-2100	31-Oct-88 0600-0900	4-Nov-88 0600-0900
p-Cymene	1.62	3.26	0.67
Indane	0.29	0.53	0.18
1,3-Diethylbenzene/n-Butylbenzen	0.58	1.37	0.36
1,4-Diethylbenzene	0.74	1.50	0.45
1,2-Diethylbenzene	0.29	0.54	0.15
Undecane	1.17	2.42	0.68
Dodecane	3.90	6.03	2.30
Trichlorofluoromethane	2.97	1.55	1.55
Dichloromethane	2.14	1.50	1.12
Chloroform	0.39	0.16	0.18
1,1,1-Trichloroethane	2.29	1.97	1.47
Carbontetrachloroide	1.20	0.85	0.70
Trichloroethylene	0.15	0.16	0.08
Tetrachloroethylene	0.53	0.33	0.26
1,4-Dichlorobenzene	0.00	0.00	0.00
SampleSite	TMPL	TMPL	TMPL
SampleID#	BVAN113	BVAN104	BVAN128
Canister#	MOE16	EPS13	EPS49
SampleDate	29-Oct-88	31-Oct-88	4-Nov-88
SampleTime	1800-2100	0600-0900	0600-0900